

MICHIGAN FARMER

AND STATE JOURNAL OF AGRICULTURE.

The Only Agricultural and Live Stock Journal in the State.

VOL. XXXII.
No. 13.

DETROIT, SATURDAY, SEPT. 25, 1897.

PRICE, 5 CENTS.
\$1 per Year.

Farm Department.

Conducted by J. H. Brown, who lives on his farm at Climax, Mich., which is conducted as the Michigan Farmer Experiment Farm. All correspondence for this department should be sent to Climax.

THE EDITOR'S FARM NOTES.

CUTTING CORN.

A portion of this job has been accomplished in some of the hottest weather we ever saw in September. We are using the same one-horse corn cutting machine for the fifth season.

We prefer this plan, and machine, in cutting our corn for shocking in the field. We have tried hand cutting and watched the two-horse corn harvesters at work, but the one-horse cutter with two men to cut two rows at a time, suits us admirably.

Were we cutting to fill a silo we should prefer this same machine, as the bundles may be made any size, laid down, or loaded on a low-down truck, without binding.

With a two-horse corn harvester or binder the twine would cost as much or more per acre as for cutting wheat. Still we like the binder when one has many acres to cut for silage.

As our field corn was drilled in this season, we were told that it would be more difficult to cut with the one-horse machine. But we had cut fodder corn during the last two seasons that was drilled in, and knew we should have no difficulty, provided the corn stood up well. In some respects we prefer cutting drilled corn.

There is one difficulty in making the rows of shocks straight—in a field of drilled corn. Of course, it necessitates running the machine parallel with the rows or drills. The rows of shocks run at right angles with the drills. At least this has been our practice.

In cutting check-rowed corn with the machine we have put 114 hills in a shock. This makes 19 rows one way and six the other. The tenth row forms the shock row, with nine rows of hills each side. As the machine cuts at right angles to these rows, we cut and carry 19 hills on each cutter wing, and ride from one row of shocks to the next.

By following this plan we have to carry corn the least distance. Six rows only are taken in the same direction the machine runs. The third and fourth rows are cut the first time through in forming a row of shocks. Just after passing the shock row, each operator steps off the rear of the machine and each bundle of corn fodder is set up bracing against each other and tied with a single stalk. In coming back the next time the first and second rows are cut. As each partially completed shock is passed the two operators stand up their bundles at right angles to the first two, pressing toward the center at tops of the bundles. In coming back the fifth and sixth rows are cut and braced against

the standing shocks and then tied with patent ties.

The above is our plan with check-rowed corn. Were we to drill in wheat in our corn ground this fall, we should reverse our plan of cutting and shocking. Our reason for not sowing corn ground this time is simply because our seeding failed on last year's corn ground, and we have stubbled the field in to sow to wheat again, and seed down once more to timothy and clover.

TO GET RID OF QUACK GRASS.

I am a new subscriber to your valuable paper, but have seen nothing about one thing I wish to know. Have waited hoping some one would help me out by asking the same question.

How can I best get rid of quack grass. Have one field partly covered with it and still spreading. Is it of any good?

Oakland Co., Mich. SUBSCRIBER.

The best thing you can do is to plow and plant to corn or potatoes in the spring. Cultivate with a tool having broad blades or sweeps arranged to cut the whole of the upper surface soil.

No kind of grass or weed pest can live long without light and air. Spring-toothed implements are not good for working such ground.

SANITARY PRECAUTIONS.

There is great negligence regarding the constant providing of pure water for both animals and the human family on many farms. The sanitary conditions are often imperfect, and the worst feature is that proper treatment is knowingly neglected, when with a little precaution and extra labor, timely taken, would furnish an abundant supply of pure water at all times.

We do not like an open well, unless extra precautions are constantly observed to prevent any possible contamination of the water therein. Tubular or driven wells are the best and safest, other conditions being equal.

The well on this farm was an open one walled with stone. Years ago we drove a pipe into the bottom, going down till an abundant supply of water was struck. This has never failed, and there exists no possible source of contamination.

The well should be located as far as possible, with due regard for convenience, from any vault, cesspool or barnyard. This is doubly necessary if the well be an open one. We should even dislike to drive a well in the barnyard for fear of possible contamination.

It is true that even sewage from such a yard, by the natural process of filtration from surface to ground water may, in passing down through the soil, become somewhat purified. However, we prefer having the surface around our well as cleanly as possible. The ground should thus slope away from the well platform in every direction.

It is difficult to detect impure water by tasting it. It may not taste at all disagreeable, and yet be unfit for drinking purposes. If at all in doubt concerning its purity, a sample should

be sent to a reliable chemist for actual analysis.

Last fall we drank water from hundreds of different wells in various parts of the State. In many instances, where the water was very low and the wells had nearly failed, we noticed a disagreeable taste left in the mouth after drinking.

In several instances typhoid fever broke out during the fall months on these farms, and we have no doubt that the primary cause was from low ground water. As a matter of fact, typhoid fever raged quite extensively over many portions of the State last fall and low wells were found everywhere. Physicians generally agree that low ground water is almost eventually synonymous with a typhoid fever epidemic.

It is during such a hot dry time as this that we farmers talk of what should be done to secure as complete and perfect sanitary conditions as possible around our farm buildings. Now is a good time to make a start.

WHEN IS GROWING CORN IN ITS BEST CONDITION?

There is a serious loss in feeding corn in its immature condition. This is done when we commence feeding corn in August, but cannot be obviated if we wish to practice soiling to a limited extent.

As to the actual loss in feeding immature compared with old corn, the following from a Cornell Experiment Station Bulletin fully shows:

TABLE SHOWING TOTAL YIELD, AMOUNT OF DIFFERENT CONSTITUENTS AND VALUE PER ACRE OF CORN CUT AT VARIOUS STAGES OF MATURITY.

Date of cutting.	Stage of maturity.	Green forage, lbs. per acre.	Per cent water.	Dry matter per a.	Protein, per cent.	Fat, starch, etc.	Fibre.	Ash.	Pounds per acre.	Feeding val. per acre (a).
Aug 2,	In bloom	24,805	85	3,658	361	98	2,124	807	268	\$ 47.02
Aug 17,	In milk	27,830	87	3,810	344	65	2,200	967	244	45.00
Aug 31,	Roasting	30,250	82	5,274	467	103	2,912	1,499	293	53.94
Sept 10,	ear	28,980	81	5,398	333	133	3,188	1,466	278	66.57
Sept 24,	Mature	30,108	70	9,109	686	224	5,598	2,232	319	115.40

(a) Protein is worth 2.3c per lb, fat 1.14c, sugar, starch and fiber 0.94c.

It will be seen that there is an increase of 25 per cent in the green forage per acre between August 2d, when the plant came in bloom, and September 24th, when it is matured, and that at the same time there was a decrease of water in about the same proportion.

The result of this contrary movement is shown in the table of dry matter per acre, from which it appears that when in bloom there would be 3,658 pounds of dry matter and when mature 9,109 pounds, or two and a half times as much dry matter in the mature stalk as in the stalk in bloom, and almost twice as much dry matter in the mature dry stalks as there was when in the roasting ear stage. In other words, it will require nearly two acres of corn in the roasting ear stage to equal one acre of mature, or to be exact, about one and three-quarters acres.

The variations in the protein column are very wide, and it seems to us incredible that the protein should double from September 10th to September 24th, while it decreased 50 per cent

from August 31st to September 24th, while it decreased 50 per cent from August 31st to September 10th. There must certainly be some mistake about this.

It will be noticed that the fat doubled between August 31st and September 24th, and the sugar and starch nearly doubled, while the crude fibre increased nearly 50 per cent, the ash remaining, as might be expected, nearly constant. Judging from this table, it will require an acre and three-quarters in roasting ears to equal the value of an acre when in the glazed state and fit to put in the shock. This, of course, refers to the entire product, both corn and fodder.

Nevertheless, we believe in feeding some of this corn in roasting ear to cattle when putting them on feed, for this reason: It enables one to take six weeks to get cattle on full feed, and in doing so we are able to use the most of the stalk as well as the ears, so that the loss is reduced to a minimum with the advantage of getting cattle on feed without deranging in the slightest their powers of digestion and assimilation.

We doubt the profitableness of the custom of commencing to feed hogs as soon as the corn is in roasting ear except under special conditions and circumstances.

For The Michigan Farmer.

DURABILITY OF POSTS.

In the issue of August 21, H. W. Holmes asks when to cut timber for posts so that they will last longest.

There are several reasons why some posts will last much longer than others, even when used from the same kind of tree.

Mr. Holmes mentioned that he had known one tamarack post to last twenty years, and others that lasted but three or four years. It is probable that the post that lasted twenty years was thoroughly seasoned before putting in the ground, and the ones that lasted only a few years were set before they had seasoned much, if any.

All timber for posts should be cut when the sap has left the body of the tree, that is, late in the fall or any time before the sap rises in the spring. A year is none too long to let posts season before they are used. In case that you cannot wait so long, build a fire and burn that portion of the post that is to be in the ground, until it is fairly black or will char on the outside. The bark should have been removed before burning.

The black locust, which is common throughout this section, southern Ohio, will last fifty years when seasoned be-

fore putting in the ground. In fact, it is worse than time thrown away to put green timber of any kind in the ground. There are several instances on record where this timber has lasted seventy-five years in the ground.

There is a wonderful difference in the same variety of timber as to lasting qualities. Where timber grows in open fields its growth is much quicker than the slow growth of the tree that grows in the forest. The forest tree growing slower is much more compact and closer grained, and does not so easily succumb to the elements by decay.

Then, again, the durability of the different parts of the same tree are not alike. The impression prevails that the butt cuts are the best for posts. Such, however, is not the case. While it is stronger, its lasting qualities are not as good as the upper parts of the tree.

By examining the cross-sections of a tree at both butt and top, the butt will show a much greater growth than the top. Who has not noticed when in the forest where trees have fallen that the butt first decays. Often the lower part of the tree has entirely rotted away, while the upper part and large limbs are sound.

Timber that is only large enough to make one post to the section will not last nearly so long as larger sticks, where they can be split into four posts or more. The slower the growth that the tree has, the longer will the posts last. For this reason timber for posts should be cut in the densest part of the forest. Remove the bark as soon as cut. Let them season for a year or so, and you will have a post that will last.

Gallia Co., Ohio. ARTHUR R. HARDING.
(This post question is an important one, and we should be pleased to hear more about the matter. Personally we are more interested in steel posts. Are they really worth more for a farm fence, taking their durability, utility and first cost into consideration?

Should not steel posts be set, rather than driven, and have a crosspiece at the bottom to prevent heaving from any cause?—Ed.)

CLOVER SEED THE FIRST YEAR.

Last year the greater part of the clover secured in this section was from last spring's sowing. The question that we raise now, is, was there any profit in the crop? In almost all cases we think it a mistake to try to get seed the first season after sowing. Especially do we believe this to be true on clay land. After getting the small grain crop off, the land, if clay, does not push the growth rapidly enough to secure a good filling before cool, frosty weather catches it. Last year the inducements were very strong to try for a crop of seed. The wheat was almost an entire failure, making the money returns very short. The wheat being a failure, and the season very favorable, the clover got an excellent start, and this was a farther encouragement to try to get a crop of seed. On warm, black bottom lands, we have known good paying crops of seed to be secured from wheat-stubble clover, but we have never known a very satisfactory yield from clover land stubble. Last year in many instances one bushel to the acre was had in many cases; from that down to practically nothing, was the story. A young farmer remarked that he thought he did well to get five bushels from ten acres or more of wheat stubble. He was looking or thinking only of the cash return, and not of other points to be considered.

Our own experience is decidedly against the practice. First, the yield of seed has not been satisfactory, and besides this, many other points are to be thought of. Last year the weed question demanded attention. Another and more important question is the effect on succeeding growth. By most men in their efforts to get a crop of seed, this point is forgotten, or utterly ignored. If men that cut for seed last year have noticed that the crop was not so thick this year as anticipated, they have doubtless passed it by without a thought as to the cause. If the plant is weakened by cutting a seed crop the first year, when one bushel of seed per acre is secured, to the extent of cutting down the yield the second year to the amount of one bushel per acre, we have lost by the operation the time spent, and the expense of cutting, making no count of the plants destroyed.

Last year we had a ten-acre field which we ran the mower over, to cut

down the weeds and wheat, allowing the pigs to eat the wheat. The pigs were taken off before they injured or trampled the clover to any great extent. When ready to thresh the clover, we could not get a machine, and to save it stacked and covered with fodder. By this time the men owning the hullers had tired of the poor returns for the work, and put their engines at sawmill work. As a consequence, our clover stands in the stack in the field yet. If the fodder cover protects it till we have a crop ready this year, it will be put through the huller to at least know how much there was in the effort of last year.

Now as to the effect of the cutting last year, on the crop of this year. By allowing the crop to go to seed last year many rag-weeds matured, in fact in some places they composed the greater part of the swath cut. Once after cutting before stacking, we moved the bunches to prevent the killing of the clover under the bunches. When we stacked the clover, the clover under the bunches looked all right, but bleached, but this spring it showed up missing, having been weakened so that it winter-killed, and the rank growth of clover this summer, but little more than obliterated these vacant spots before time to cut for hay. While we got an immense crop of hay, we lost considerable on account of the vacant spots; if we get a crop of seed this year, they will tell still more unfavorably against the yield of seed than they did against the hay.

On a farm near here, last year, there was from a field harvested a light crop of wheat. On this field was a fine stand of clover; the greater part was clipped to destroy the rag-weeds. The crop on the part left for seed was not saved, but cut off late, and left on the land. The manager said the clover on this plot this year was not as good by one-half as where the weeds and clover were clipped before either matured.

On our own field a year ago we thought the stand as near perfect as possible to get it, but now it is very spotted and not altogether where the bunched clover lay. Another field on the farm that we thought no better stand was clipped when the rag-weed was in bloom. On this field the stand is regular, and looks to be one-fourth better than on the field that was cut for seed. The latter is in much better tone than the former, as the field had recently been top-dressed with manure. These are evidences against trying to get seed from clover the same year in which it is sown, that should have careful consideration.

Ross County, O. JOHN M. JAMISON.

WHEAT AFTER CORN.

Doubtless the present rise in price of wheat will result in a large increase in the acreage sown this fall. It has been so low in price for the last few years that the interest in its production among the farmers even in wheat-growing sections has been very slight. The excellent crop of clover and low price of hay will also cause many farmers to plow up their clover fields and sow them in wheat this fall. This, however, will incur a great deal of hard work for both man and beast and result in but little if any better profit, all things considered, than if the sod were left to remain until spring and then plowed under and a crop of corn raised next summer and then wheat were sown in the fall. A great many farmers object to sowing wheat on corn ground, thinking it will not bring as good results as where either stubble or sod is sown to wheat; and there may be sections of the state where this is true. But in our section it is not so. Besides, the loss of the second crop of clover either for seed or pasture will go far toward overbalancing the increase if any in the yield of wheat. We believe just as good wheat may be grown where sod is broken in the spring and a crop of corn raised during the summer as where it is sown after fall plowing. It has been and is our practice, and in fact the general practice in our locality, to sow wheat on corn ground in fall in preference to plowing either sod or stubble ground, and on the average with as good results.

This year our wheat from corn ground yielded 50 per cent more than a field we plowed last fall. Some object to sowing corn ground because of the difficulty they have in securing a fine seed bed; but with us we find it just the other way. Where corn has been cultivated as it should be it is an easy matter to put the soil in first-class condition for wheat. Unless the fall

has been a wet one like last year the ground will become packed and hard, a common spike-tooth harrow going over it the cross way from last cultivation will put the soil in fine condition for seedling; and when it is too hard for the spike-tooth harrow a disc or spring-tooth harrow will generally meet the requirements.

Then it is quite a saving in the labor of preparation and it lessens the cost of production very materially. We always considered plowing either stubble or sod for wheat in fall about the hardest work on the farm both for man and beast. All this is avoided by the method given above.

Some object to the corn stubble left on the ground in the fall; but these can be broken down with a plank or pole, when the ground is frozen in the winter, at the rate of 15 or 20 acres per day, and at a time when neither men nor horses are pushed with other work; or they may be mashed flat so as to be entirely out of reach of all machinery by the use of the roller in the spring after the ground becomes settled enough to allow a team upon it.

We prefer the latter method as it puts the stubs out of the way just as effectually and at the same time presses the wheat plant in the soil at a time when it does good. We nearly always sow one shock row at a time, the corn being 12 hills square. One man and team can sow from eight to ten acres per day in this way and, by walking behind drill to drive, all rubbish that may catch in the hoes can be taken out by simply stepping upon it. We do not believe in sowing wheat twice—that is, sowing cross-wise between shock-rows, using about half as much seed as is desired each time. This method has been advocated by some who claim that it obviates turning around shocks and distributes the seed more evenly in the ground.

But our experience has been in the few times we have tried this method that the extra time it takes to go over the field twice overbalances the time lost in turning around the shocks and sowing the points afterwards. Besides if the weather happens to be unsettled there is a likelihood of being caught with rain and kept out so long that the first sowing will be sprouted and be damaged by going over the second time. We have never heard of any larger yields resulting from double sowing than where sown but once.

On our soil we sow about 1 1/2 bushels per acre and sow about two inches in depth. We believe mistakes are made sometimes in sowing too much seed as well as too little.

If the seed is clean and good, as it always should be before being sown, on most soils a bushel and a half per acre will be sufficient. We have practiced sowing that amount for several years and found where the ground was in fine condition our yields were about as good as where more was sown. The practice of sowing two bushels per acre is not advisable in this section and is only a waste of seed. Last year we sowed a field and put on two bushels of seed and on another 1 1/2 bushels and the field where 2 bushels of seed were sown yielded 22 bushels per acre, while the other yielded about 30 bushels.

This wide difference may not have been from the amount of seed, altogether, but it could not have been in the soil as the yield of corn on the field where two bushels were sown was not less than 15 bushels per acre greater than upon the other field. We feel inclined to continue this experiment with different amounts of seed this year, but will put the plots in the same field so that the test may be more accurate. We shall sow all corn ground this fall, believing we can get more profit from wheat grown in that way.

Allen Co., O. JOHN BEGG.
(All through this portion of Michigan our farmers very generally practice sowing corn ground to wheat. For 20 years we have followed this plan and shall drop it for the first time this season.

We agree with what friend Begg says, with a few exceptions. The cheapest wheat we ever raised was sown on corn ground, and the poorest wheat has sometimes been secured from this practice.

In a few instances the best and heaviest yield of White Clawson was grown on corn ground, but as a general thing our corn ground wheat has been more or less unsatisfactory for several seasons.

When the corn ripens early, and we can fit and sow the wheat in good season, we have usually secured a fair

yield. But when the corn is cut after the middle of September, and the wheat not in the ground before the 25th to the 30th of the month, we usually expect more or less of a failure.

Should we have a cold, dry fall the late sown wheat does not secure a fair start to withstand the rigorous winter and the freezing and thawing of early spring. A week's difference in the time of sowing may make a success or failure of the resultant crop, and who can tell just when is the right time to sow?

For sowing wheat on corn ground in this latitude, we think it would pay to have a one-horse wheat drill on hand to sow the wheat in the standing corn, provided the corn is not ready to cut by Sept. 10. It may not be necessary or advisable to sow in the standing corn every season, but it sometimes is.

There are many fields of corn not yet ready to cut—except in patches—as the ears are still too soft and the kernels hardly glazed. Some of the corn being cut to-day (Sept. 16) will shrink on this account.

As it has just rained in this section we believe it would be a good time to sow wheat in our standing corn—what is not already cut. We do not know, but have an idea that there would not be so much danger from the Hessian fly on this ground.

Corn ground wheat is usually a success or failure, according to the time of sowing, in this latitude, and we believe, with friend Cowdrey, that late sowing on corn ground is usually done at a loss.—Ed.)

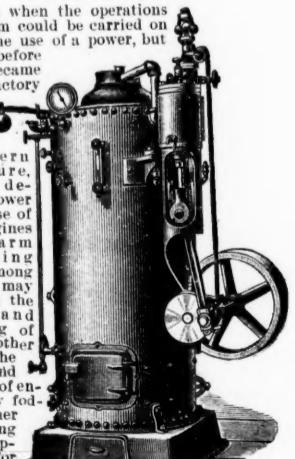
AMERICAN TOOLS IN RUSSIA.

According to advices received in New York city recently, and quoted in the Journal of Commerce, there is a good outlook for American machine tools in Russia. Parties in that country have recently placed an order with a New York concern for taps, dies, pipe threading machinery, wrenches and more than a carload of different sized small lathes for shipment to St. Petersburg. The firm in Russia sending the order state that there is at present no particular fear of British competition in these goods, as the English prices are not as favorable as those from the United States manufacturers. German manufacturers are the only ones from whom serious competition may be expected, but unless the latter offer special inducements it is not unlikely that a large order expected to be given in Russia in about two months' time for the equipment of machine shops and railroads may go to manufacturers in this country.

The Prussian Minister of Commerce has called the attention of German machinists to India as a market for German machinery. In view of the competition of the United States and Great Britain, he recommends the Germans to send experts to Bombay, Calcutta, Madras, Currachee and other trade centers of British India to establish agencies and repair shops there, as he believes that a good demand for German machinery, if properly introduced, could be developed. He points out that India is a country where many new industries may be established, and therefore offers a market for a large variety of mechanical plants.

FARM ENGINES.

Day was when the operations of the farm could be carried on without the use of power, but that was before the farm became a manufactory in the sense that it is to-day. The modern agriculture, however, demands a power and the use of small engines on the farm is increasing daily. Among the uses may be named the shelling and grinding of corn and other grains; the cutting and shredding of ensilage, dry fodder and other feed; sawing wood, pumping water for live stock, running cream separators, etc., etc. All of these uses demand a strong and safe engine and boiler and one which will steam quickly and prove economic of fuel. Exactly these things are true of the Leffel engines and boilers, a cut of which is shown herewith, and which are manufactured by James Leffel & Co., Springfield, O. This cut represents an upright engine and boiler, but they make the horizontal patterns as well and in sizes to meet all requirements. Write them for free book on engines and boilers and tell them that you saw this in the MICHIGAN FARMER.



Live Stock.**THOROUGHBREDS AND FULL BLOODS.**

Please answer through your paper in breeding sheep:

Is there a difference between a full-blooded animal and a thoroughbred animal? How many top crosses does it take to get a thoroughbred? Can you get a full-blooded animal unless you start with full blood stock on both sides?

These are questions I have heard much talked about of late, and if you find it convenient would be pleased to have you answer them. J. A.

To your first question we answer no, in the sense that the word thoroughbred is now applied to farm animals. Really, however, the word thoroughbred belongs only to a family of the horse, the English thoroughbred, or running horse. It is now applied to any kind of improved live stock, horses, cattle, sheep or swine. Thus we hear horsemen speak of thoroughbred Percherons, or Clydes, or coachers. It would be just as proper to speak of Holstein Shorthorns, or Jersey Herefords. The proper term to use is pure bred, that is, without any outside blood in the sire or dam. Full blood can be used in place of pure bred, and has the same meaning.

To your second question, we reply that in the case of all families of the sheep they must trace to pure bred imported stock on both sides, and any number of crosses will not secure the recognition of the animal as pure bred, or full blood, if it traces to grade stock on either side. Thus the English mutton breeds must trace to pure bred English ancestors, the families of the Merino to Spanish ancestors. The Ramboillet, or French Merino, when produced by a ram of this breed crossed on a pure bred American Merino ewe, is accepted as pure bred, and eligible to registry in the flock book of the breed. This is because the American Merino and the Ramboillet descended from a common ancestry—the Spanish Merino—and have been kept pure.

To your third query, we reply that it is virtually answered above. There are only two instances in which you can start with outside blood on one side and finally secure stock eligible to registry. One is in the case of the Ramboillet when crossed with the American Merino, and the other is that of the American thoroughbred, where five direct crosses of pure and uncontaminated thoroughbred blood is held to entitle the animal to recognition as a thoroughbred, and he will be registered as such. The English Stud Book, however, will not accept animals which do not trace direct to animals already recorded on both sides.

The organizations controlling the registers of the different breeds fix the standard of registration, and thus define what they recognize as pure bred or full blood animals.

HOW THEY CURE HAMS IN SOUTH CAROLINA.

The following description of how hams are cured in South Carolina was furnished the Charleston News and Courier by a farmer of Laurens County, who is regarded as an expert by his neighbors: When the hog is killed the hams are literally buried in salt. After laying in salt for five weeks they are taken out, sponged off with boiling water and placed in a cage, the bottom and top of which are made of tongued and grooved flooring, while the four sides consist only of closely woven wire netting. The hams are cured by the smoke passing through the netting, which excludes the fly, which is the greatest enemy to hams, and protects them from rats and mice as well. "The best way to smoke," Mr. Irby, the party referred to above, says, "is to build a fire on the ground with hickory wood. It will fill the smokehouse with smoke, and this will soon permeate the cage. The hams are left in the cage until they are wanted for use. I originated this plan and was generous enough not to patent it. It has been tried by me and is a complete success."

We would call the attention of our readers to the extensive sale of Oxford Down sheep, cattle and farm property, which will take place at the farm of Messrs. Lee and Aitken, Flint, Mich., on Thursday, Sept. 30th. Anyone in need of anything in this line will have an excellent opportunity to buy cheap. See their ad. on another page.

STOCK NOTES.

Sheep feeders are taking large numbers of the stock being offered at the Chicago yards, and are shipping them back into the country. It is probable that a good number of the ewes will be bred.

The quantity of American dressed beef consumed in London and England generally now is so large that famine prices would govern the English market at once if ever the supply were cut off. The popularity of this product is largely due to the neat and cleanly manner in which it is marketed.

Wood Bros. had a consignment of 588 prime Nebraska hogs that attracted universal attention among the hundreds of buyers present. They were sent to the market by W. H. Butterfield, of Nebraska, and were pronounced the best lot raised by one farmer ever marketed in Chicago. They were mostly Berkshires.—Chicago Journal.

Blind staggers in pigs generally come from over-feeding young pigs, not allowing them exercise enough, or lack of water. Cut down their rations, give them a wider range, and supply them with pure water so that they can have it at any time they want it. The ill-fed hog never suffers from blind staggers; he is too busily engaged in looking after food to get them.

The highest point reached for cattle in the Chicago market this year, was on September 15, when 15 head, averaging 1,673 pounds sold at \$5.75, all selected out of a drove of 60 head. The price is the highest since last December. They went to Philadelphia to be used for show purposes at the butchers' picnic and stock show. Experts pronounced them as good as they had seen in years. They were right in color, breeding and finish. The previous day 15 head, averaging 1,450 pounds, brought \$5.65 per hundred. It must be remembered, however, that these lots were taken for show cattle, and were of a quality seldom seen at the yards. They were Shorthorns.

In a bulletin just issued by the Indiana Bureau of Statistics, the number of hogs reported in that state is 1,411,949, against 1,472,332 last year, a decrease of 60,383 head. But there has been an increase in pigs over last year of 121,513. The number of hogs that died from disease during the year ending July 1, 1897, was 899,452, as compared with 580,260 the previous year, a very large increase. Of course "cholera" is charged with most of the deaths. The bulletin says the number of milch cows decreased 13,543 during the week, and an increase in beef cattle of 3,422, but that the latter is still fully 50,000 head less than a few years ago.

The following from a firm of western cattle dealers explains the cause of the decline in cattle last week: Owing to the general scarcity of stock water and the drying up of pastures feeders have bought but few cattle and packers have been left in full charge of the field, and they have demanded concessions and obtained them with but little effort. Not only has the dry weather kept feeders out of the market, but it has caused feeders to ship in their native cattle on grass and corn, and our supply of native cattle has been large and prices lower. The decline up to yesterday on westerns was 10@15c. The Omaha and Sioux City markets have been overstocked with western cattle, and the prices obtained there yesterday shows a fair margin in favor of the market here.

A. W. Bitting, veterinary at the Indiana Experiment Station, says of new corn as a provocative of hog cholera: "Hog cholera is by many believed to be produced by new corn. Such is not the case and if swine raisers used the same care and judgment in feeding new corn as does the cattle feeder in feeding steers, this notion would soon become obsolete. In feeding cattle it is recognized by all feeders that the introduction of new corn into the diet must be a gradual process. Only a small part of new corn with old corn can be given at first and the quantity gradually increased requiring in all about six weeks to make a complete change from the old to the new. If a full feed of new corn were to be given to cattle the first week a large number of fatalities would result. New corn is purgative in its action and it requires some time for the intestinal tract to become accustomed to it. New corn can not of itself produce hog cholera, but may induce such a weak

ened condition of the system as to make it an easy prey to disease." It seems to us Dr. Bitting comes very near contradicting himself in that paragraph. First he says new corn will not produce cholera but may induce a weakened condition of the system to make it a prey to disease. In other words, if you feed a great deal of green corn to your hogs you may expect cholera, but the corn is not the cause—it only induces attacks of the disease.

If the date on the yellow label on your paper is Oct. '97, your subscription expires with this number. Send us your renewal now and avoid missing any numbers.

Veterinary Department.

CONDUCTED BY DR. W. C. FAIR.

Advice through this department is free to our subscribers. Each communication should state history and symptoms of the case fully; also name and address of the writer. The initials will only be given. When an answer is requested by mail it becomes private practice, and a fee of one dollar must accompany the letter.

Corns.—Work horse is troubled with corns on right fore foot. I think he makes him lame. A. G., Midland, Mich.—When you have your horse shod, keep pressure off corn and he will soon get well. Stand him in wet clay two hours a day.

Capped Hock.—Grade Norman mare has a bunch on point of hock. She did it by kicking in stable. How should she be treated? A. W., Jackson, Mich.—Apply equal parts tincture arnica, extract witch-hazel and alcohol twice a day.

Worms.—Two-year-old colt is not doing well. He is thin; coat looks rough. He has lost flesh for the past five weeks. J. W., E. Saginaw, Mich.—Your colt has worms. Give him one-half dram santonin, one dram powdered sulphate of iron, one dram ground gentian once a day for a few days.

Sweeny.—Six-year-old horse sprained his shoulder seven weeks ago. He has gotten over his lameness, but I notice that his shoulder is shrunken. He is a good work horse and I would like to cure him entirely. A. J., Monroe, Mich.—Feed him plenty of oats. Work him daily. Apply one part caustic balsam to two parts sweet oil to shoulder every other night.

Ringworm.—Horse has sore patches on body. Sores do not discharge and are a little larger than a silver dollar. W. G., Hillsdale, Mich.—I think the sores on your horse are ringworms. Apply tincture iodine once a day. Clip hair off and wash parts with soap and water before making the application.

Cough.—Young horse coughs quite hard when he is eating hay or grain, but does not cough very much at any other time. What can I do for him? J. C. B., Swartz Creek, Mich.—Take one-half ounce powdered licorice, one dram powdered digitalis, four grains arsenic, one dram ground nux vomica in feed three times a day. If the throat is swollen, blister once every ten days with caustic balsam.

Parasitic Bowel Trouble.—What ails my pigs? They are nine weeks old. Three weeks ago one pig became weak in back. Its hind legs give out when it runs, but it gets on its feet when it stops. Now two more are affected in the same way. A. F., Giltner, Neb.—Give one-half dram powdered sulphate of iron, one-half dram ground gentian once a day. Feed them plenty of salt. Allow them to have plenty of exercise. Keep their pen clean and well disinfected.

Barbed Wire Fence Cut.—Five-year-old horse was cut on barbed wire fence three weeks ago. I first used carbolic salve for one week. Wound got somewhat better. Then I used some sulphur for a few days. Now I think there is proud flesh in sore. I am using sugar of lead dissolved in rain water, but wound does not heal over. L. H. H., Chelsea.—Apply one part carbolic acid to 20 parts water once a day, and iodoform once a day. If there is any proud flesh in wound, cut it out with a sharp knife.

Barren Cow.—Seven-year-old Guernsey cow had been in heat once in eight or nine days. She has been returned to the bull seven or eight times. Is there any remedy? If she were an ordinary cow, I should not be so anxious to keep her, but she is a first-class butter and milk cow. I also have a Jersey cow that hurt back part of udder some time ago, causing it to swell

and become hard. R. S., Vanderbilt, Mich.—You would better take your Guernsey cow to another bull. It is possible that she is barren. Apply tincture iodine to swollen udder once a day.

Indigestion—Colic.—Mare has been sick for over a month. Our local veterinarian does not seem to know what ails her. First, she panted and blew very hard while working on mower. Ten days ago she took sick while working on binder. Acted as if she had colic. Since then she has had several sick spells with symptoms as follows: lying down, kicking and rolling; also belched up gas. She had no appetite for hay or grain more than half the time. Our veterinarian kept her at his stable a few days. He informs me that she ate well while at his hospital. She refuses to eat grain or hay since I got her home. She has been a poor feeder for the past year. She has been kept on dry feed and worked hard. Since she has been sick, I have let her run to pasture. J. M., Hudson, Mich.—Give your mare one-half ounce bl-carbonate of soda, one-half ounce powdered wood charcoal, two drams ground ginger in feed three times a day. Regular feeding and regular exercise will benefit her. Also feed her plenty of salt.

Periodic Ophthalmia.—Eleven-year-old mare has sore eyes. About a year ago one eye commenced to swell. It ran water as if it had something in it. I washed eye with salt and water. It soon got well. Remained all right for two or three weeks, then got sore again. Three or four months later the other eye became sore. I found a hair of the foretop in that eye. I cut her foretop off and her eyes were better for six weeks. Then they both became affected. One eye was sorer than the other. Lids are somewhat swollen. Had two veterinarians look at them. One said that she had "granulated lids" and the other said she had "moon eyes." F. D., Nashville, Mich.—Your mare suffers from periodic ophthalmia, a constitutional disease which usually terminates in blindness. I think your mare will lose her sight before long. Apply three grains sulphate of atropia, four grains sulphate of zinc, one ounce distilled water to eyes twice a day. Keep her in a dark stable. Foment eyes with hot water twice a day, half an hour at a time, before using eye wash. Keep her bowels open and acting freely. The stable where she is kept should be very clean and well ventilated.

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Department of Veterinary Science**Detroit College of Medicine.**

Lectures Begin September 29th, 1897.
A new building has been erected especially adapted and supplied with ample facilities to meet the wants of this Department. Dr. E. A. A. Grange, for many years State Veterinarian and Professor of Veterinary Science in the Agricultural College of Michigan, has been secured as Principal and Professor in charge. This is a sufficient guarantee of thorough and effective work, and should give the best assurance of a large and successful development of the science of medicine as applied to dumb animals. Send for catalogue, which will give full information as to courses of study, terms, etc.

H. O. WALKER, M. D., Secretary, Detroit, Mich.

EXTENSIVE SALE OF OXFORD DOWN SHEEP, CATTLE and OTHER FARM PROPERTY.

Messrs. Lee and Aitken, of Flint, Mich., having rented their farm at that place advertise for sale at **Public Auction, Thursday, Sept. 30, 1897.** on the farm, their whole flock of pure bred Oxford Down ewes and rams. They also advertise 60 head of cattle and all their other farming property for sale in the same way at same time and place.

\$1,500 buys 150 choice **Registered Shropshire** shires. None better at any price. Come and see them at once. **BARGAIN.** BOX 25, VERNON, MICH.

HERE is where you find extra good Poland-China spring pigs of best breeding for sale. A. A. WOOD, Saline, Mich.

PURE Bred **Hampshire Rams** from imp. stock at a bargain for the next 60 days. Inspection invited. J. H. TAFT, Mendon, St. Joe Co., Mich.

MAMMOTH WHITE HOLLAND TURKEYS.—A few choice young toms for sale at MEADOW BROOK FARM, Rochester, Mich.

The Horse.

SOMETHING ABOUT WESTERN HORSES.

A correspondent, who signs himself "Pony Boy," writes to the Drovers' Journal on the subject of western or range-bred horses, referring particularly to their adaptability for cavalry purposes and their breeding. He also explains what a "bronco" is and when and why he changes from a "bronco" to a "manzo." The correspondent says: Many Easternized Western men have been reading with great interest the attention that the United States and European governments are now giving to Western range-bred horses for cavalry purposes.

While resident West I persistently pricked up breeders and buyers with my pen, earnestly hoping to see some final admission of the merits of a certain class of range-bred horses for cavalry service. And now, without the slightest egotistic belief that either my ideas or my pen have helped along the matter, I believe I am to see at an early date Western bred horses accepted as just the best mount obtainable for the service that the United States cavalry has to perform, and in selected size, form, color and action, eligible for European cavalry, where both man and mount are heavier than in the United States.

In the Drovers' Journal, of Sept. 6, under the caption, "Cavalry Test for Broncos," you speak of two "Western broncos" arriving at Galena, Ill., after a trip of 2,400 miles on grass, straight, without any other feed except what they grazed by the wayside en route. For range-bred horses, picked up bronco off the range and ridden the whole 2,400 miles unshod, that is a splendid record, deserving the just approval of cavalrymen the world over.

But while our range-bred horses got there all right, they did not arrive at their destination broncos.

I do not know how the idea originated that broncos are a breed of scrub horses, nor yet how people began erroneously to spell the word "broncho." Bronco is a Spanish word and spelled in every Spanish and Mexican dictionary "b-r-o-n-c-o." As an adjective it means rude, rough, sullen, morose—just the condition of a range-bred horse while being tamed and broken. As a noun bronco means a wild, untamed, unbroken horse. When broken and gentled, fit for service, a horse is said to be manzos, that is, no longer bronco wild, untamed, but manzos, tamed, broken and gentle. It is useless to try to correct an error so wide-spread and popular as this "bronco" misnomer, but intelligent people will be willing to be correctly informed nevertheless.

The fact that the horses were no longer broncos, but manzos at the end of their trip, is proved by your own words, in the articles referred to when you say: "The horses were caught wild on the range and broken to ride on the trip." From what I know of Jim and Kit Gabriel those horses at the end of the trip were no longer broncos, but well-broken saddle horses.

BREEDING AND CARE OF HORSES.

Prof. Roberts, of Cornell University, in a lecture to the students in the agricultural department of that institution, gave this advice on the breeding and care of horses: "In breeding horses, don't try to breed the largest—their limbs give out and they go all wrong. Exceptions, draft horses, and in smallest ponies. A 2,000-pound draft horse will bring twice as much as one of 1,300 pounds; but is very hard to breed. Never get overstocked with horses, keeping twenty to forty, when eight to ten are enough for your land. Remember that half the success of farming lies in the business part of it. If you lack in business sense you will probably be a financial failure. Have a plan in your breeding. There is as much in having the right kind of a horse in the right place as in the hired man. If you love horses, breed coach horses. If not, breed draft horses, which are easy to break and train. Roadsters come from the trotting class of horses. The hackney naturally belongs to the truck farm, and every farmer ought in a way to be a trucker. Low horses, and even ponies,

are good for orchard cultivation. It is quite possible, by scientific feeding, to make horses grow large and tall, or the reverse. One successful horse-raiser I know feeds plenty of bone meal to give his horses fine, bony structure. The land has much to do with their quality. The little city of Lexington, Ky., sells annually in her streets \$2,000,000 worth of horses. The blue grass country produces horses because of the phosphates in the soil. In caring for horses remember that the farm horse does not want his skin made too sensitive by over-currying. He perspires freely. What he does need is to have his feet and legs taken care of. Put your chief care upon him at night, after his day's work is done. Clean out his feet thoroughly, leaving no mud to dry in. He gets rheumatism from it. You only need simple tools to work with; first an old broom, and finish off with a wisp of straw, rubbing legs and feet well, hard and quick. Cut off the fetlock if you like; the feet, without it, dry off more quickly. To keep the horse clean and free from dust, a light blanket of cotton or jute costs less than the time for cleaning. Then, too, the blanket keeps the hair straight, and helps to keep it from growing. Never blanket a horse in the stable, while he is warm, unless you give him a dry blanket shortly after. The driving horse must not be fat, but lean and hard, be well curried, sensitive in mouth and skin. * * * * The first great mistake in caring for horses is feeding too much hay; the second, is not feeding often enough. A horse should be fed four times daily, and half the day's feed should come after six o'clock at night. More horses are hurt by overfeeding of hay than grain. A horse should not work over five hours without feed, and different horses require different food. Some horses do better on straw than hay."

HORSE GOSSIP.

Hamburg is apparently the best two-year-old in training at the east. He gets beat now and then, but when he wins, as he does in most of his races, he does it in a very impressive way.

The hippodromes between Patchen and Star Pointer seem to be favorably received by the fair crowds. At the Indianapolis State Fair Friday of last week, Pointer won a heat in 2:04 1/2 and Patchen the next one in 2:03, which created great enthusiasm. The owners of these horses are picking up a good deal of easy money. The match was for a purse of \$3,000.

The great Transylvania stakes for 2:14 trotters comes off at Lexington, Ky., October 7th. The starters will be Rilma, 2:10; Eagle Flannigan, 2:12 1/4; Oakland Baron, 2:09 1/4; Louis Victor, 2:10 1/4; Octavia, 2:11; The Monk, 2:10 1/2; Mosul, 2:09 1/4, and Cresceus, 2:11 1/4. Of the lot we should be inclined to favor Cresceus, 2:11 1/4, and The Monk, 2:10 1/2, provided they are at themselves the day of the race.

Allen Lowe thinks Star Pointer can pull a high-wheel sulky in 2:02 or 2:03, and a wagon in 2:05, and there are those who agree that he has not placed the figures any too low.—Chicago Horseman. If he can, why does he not try to reduce Johnson's 2:06 1/4? It is still the record despite John R. Gentry's best efforts.

James R. Keene has shipped three of his stable of runners to England, namely, Voter, Uriel and Blackcock. He has entered Voter, a very fast 3-year-old, in the Cambridgeshire stake, one mile and 240 yards. He gets in at 105 lbs., while Galtee More, winner of the Two Thousand Guineas, Derby and St. Leger, and undoubtedly far the best three-year-old in England, will have to take up 132 lbs., or 27 more than Voter, a weight Mr. Keene evidently thinks he cannot carry and beat his horse. The race is to be run October 27th, and the question is, can Voter be got into condition for it after his voyage, and before he can be acclimated.

The trotter has lost a hundred feet a minute since the pacing and trotting records stood on a par at 2:04. If Alix and Star Pointer were to race and both go evenly rated miles up to their present records, Alix would lose about ten inches with every stride, supposing that her stride measures 20 feet. At the half furlong she would not be even up to Pointer's sulky wheel. When the pacer reached the quarter, Alix would be 25 feet back, and when Pointer finished his mile the trotter would be 200 feet up the stretch. This gives a clear idea of the difference in the two gaits.—Chicago Horseman.

It is said that the American horses which sell the most readily in the German markets are the short-limbed, heavy set animals of the Percheron breed. Such animals were largely imported from Belgium and northern France until recently, when the supply became short. They demand a heavy boned animal, with plenty of weight. Danish horses, large numbers of which are imported into Germany, are used for tramways and stages; they are not so heavy as the Percheron breed. The hoofs of the American horses lately imported are pronounced better than those of the Belgium horses. The demand in Germany is, next after the class above named, greatest for showy, high-stepping horses.

A story comes from the west that many Indian horses are being killed on the reservations by barbed wire fences.

The degenerate horses, abandoned by their Indian owners, have become an acknowledged nuisance upon the public ranges. They roam about in large herds, and are as wild as antelopes.

Their watering places have been fenced up, and it is hard to divert them

from the runways of a lifetime. Each

herd is led by a patriarch stallion, who

holds his command with a discipline

that would be a credit to military tactics.

These herds range on the hills,

far from water, seeking the springs

only once or twice a week. Their runs

are sometimes as far as ten miles. The

stallion drives the herd to water, fol-

lowing in their flying wake and driving

every straggling beast with hoof and

teeth, pushing them at a high rate of

speed, much after the manner of bu-

faloons mad with thirst and blinded

with dust, they rush into the wire

fences that cross the old trails, the

leaders being driven with such force

that throats are cut and legs are sev-

ered, but the fences go down and the

herd proceeds over the plowed fields

and growing crops. As a result the

reservation is covered with dead and

dying horses, every section reporting

the same scene, and allowing the vic-

tims to fare as best they may.

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REGISTERED HOLSTEINS of both sexes and all ages for sale from my World's Fair prize-winning herd. \$10 head to select from. Prices low. Terms easy. B. F. THOMPSON, Detroit, Mich.

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OXFORD DOWNS FOR SALE—both sexes. No better individuals or better bred on the continent. D. D. AITKEN, Flint, Mich.

RAMS FOR SALE—Choice Shropshires, good enough to head best flocks. Prices right. Write for special prices now. Choice Crimson Clover Seeds, \$2.50 per bu. Sacks free A. H. FOSTER, Allegan, Mich.

SHROPSHIRE HALL STOCK FARM. A grand lot of yearling rams from imported stock, good enough to head any flock. Also yearling and two-year-old ewes bred to choice rams; ewe and ram lambs; none better. L. S. Dunham, Concord, Mich.

ANCHORWOOD FARM, Flint, Mich.—Registered English, Canadian and Michigan bred Oxford Down sheep. Prize winning registered Jerseys. Registered Holsteins. Pure bred black Langshan chickens. A few Oxford Down ram lambs for sale from imported sire and dam. Wanted a few registered Holstein calves. Address ANCHORWOOD FARM, Lock Box 162, Flint, Mich.

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COUNTY LINE HERD OF POLAND-CHINA SWINE.—Pigs ready to ship. Young sows bred for sale. E. D. BISHOP, Woodbury, Mich.

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JOHN BERNER, Prop., Grand Ledge, Mich. My stock comes direct from L. B. Silver Co. Write for prices.

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WE can give you BARGAINS in POLAND-CHINA PIGS and B. P. R. two grand yards Eggs 15 for \$1. Write to WILLARD PERRY or Hastings, M. H. BURTON, Mich.

Special Sale of Chester Whites at CASS VALLEY FARM. Lot of fat and spring pigs, dandies, at 25% of their value. Write to-day and secure a bargain. W. W. BALCH, Deford, Mich.

SOLD CORWIN KING for \$300 at 7 years. He now heads the oldest herd in Iowa. If you want to know more about him, write to him.

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W. O. WILSON, Okemos, Mich., proprietor of the Michigan Central herd of IMPROVED CHESTER WHITES.

Choice pigs of March and April farrow. either sex and pairs not akin. Write me just what you want or give me a call if convenient.

Sheep and Wool.

From Our Special English Correspondent.
PROPERTIES OF WOOL.

When we remember that such apparently dissimilar things as the wool of the sheep, human hair and finger nails, birds' feathers and horses' hoofs are all of very similar composition, and differ only in structural arrangement, it does not seem improbable that wool fibres should vary somewhat in themselves. This, of course, is actually the case; fibres from different breeds of sheep, or even from different parts of the same animal, vary greatly, not only in length, thickness, etc., but also in actual structure. A typical fibre, such as may be obtained from a good Merino or Southdown fleece will possess the typical structure described above; but frequently the type is departed from to such an extent that the central core of globular cells is entirely absent.

It is very interesting, as well as instructive, to examine the various characteristic properties of wool in the light of the peculiar structure of the fibre which has already been described. The physical properties of wool, which render it of such value as a textile material, are: (1) Strength and elasticity; (2) curliness; (3) felting property; (4) lustre; (5) avidity for liquids, or the power to take dyes.

Each of these properties should receive careful attention and thought during all stages of the fibres growth, as well as in all the stages of its manufacture, so that it may be utilized to the fullest extent in the process which is being carried out, or preserved uninjured either for use afterwards or to enhance the value of the manufactured article to which the wool is put.

(1) Elasticity and strength.—These are properties which, in common with silk, wool possesses in a greater degree than all vegetable fibres. When submitted to torsional strain the wool fibre exhibits a remarkable strength; and when the breaking point is reached the fracture always takes place at the juncture of two rings of the outer scales, the embedded edges of the lower layer being pulled out of their seats. The scales themselves are never broken. By reason of its structure, wool is also able to withstand an enormous crushing strain; in fact, its resistance is so great, that for all practical purposes the effect of any direct pressure may be neglected. The structure is again beautifully adapted to prevent injury by flexure, bending, or winding. When any elastic body is subjected to a bending, compression is produced on the inner surface of the bend and a torsional strain on the outer surface. In the wool fibre, the cells in the central zone being more or less plastic are, no doubt, temporarily deformed; the spindle-shaped or fibrous cells are bent, and the outer scales being free for a portion of their length slide over one another to the extent necessitated by the degree of flexure.

It has been found that the limit of elasticity is from 0.3 to 0.5 per cent. of its length, and if stretched beyond this amount the fibre will not return to its original length, but takes a permanent set; the strength of the fibre is then much impaired, mechanical disintegration having no doubt commenced. This is well seen by stretching a white horse-hair—the sudden change from a semi-transparent to an opaque appearance marking the period when the elastic limit is exceeded. The breaking strain of the wool fibre depends a good deal upon its diameter, which varies considerably. Both the breaking load and the elastic limit are, however, very variable quantities, and are often unequal in different parts of the same fibre. It has also been found that the amount of moisture which the fibre contains at the moment have a certain influence on the strength and elasticity.

These valuable properties of the fibre are, of course, injuriously affected by any process which tends to modify its structural arrangement, or act upon the fibre substance, such as drought, scarceness of feed, etc.

The strength and elasticity of the fibre are very important factors in the spinning and weaving process, and it is not too much to say that the milling or felting process could not possibly be conducted in the manner usually employed if the elasticity of the fibre were not capable of taking up the original sudden strain

produced by the blow or pressure brought to bear upon the fibre in the felting process of cloth manufacture.

YORKSHIRE. AGRICOLA.

THE SHEEP INDUSTRY.

Now that the tariff rate is settled on wool, and we are to have a moderately high one, 11 cents per pound for Merinos and similar wools, there is an increased inquiry for sheep of every grade. All will be money-makers for their owners during the next few years if proper care and attention is given them.

It is astonishing to one that has traveled much for the past five or six years, to see the vast changes that have taken place during that time. Five years ago the hills and valleys of Michigan, Ohio and other adjoining States were covered with sheep of all grades. But the decrease in the price of wool came the following year and not a few disposed of their flocks; the next year the price was still lower and more disposed of their flocks. The following year wool had reached its lowest and the greater part of the remaining flocks were sold, many of them for almost nothing. I know of several good flocks of Merinos that were sold for 60 cents per head.

It was not alone the low price of wool that caused farmers to dispose of their flocks, for the value of mutton, as well, had greatly fallen in price. There was absolutely no money whatever in the vocation. But the longest night must end. The dawn has come and the scramble for sheep has been going on for months already. Many who sold their sheep three years ago for almost nothing are to-day anxious inquirers for sheep.

When the depression in the sheep business came a few years ago, and our neighbors were selling their flocks at from 50 cents to \$1.50 per head, we clung to our "woolly animals," believing that time would bring a reaction. On all sides could be heard the remark that "the day of the sheep is forever past." Anything, it matters not whether sheep, cattle, hogs, horses, wheat or potatoes, is sure in the course of years to undergo a depression. The man who has followed and made a life study of anything can not afford to drop it because the price has gone below what it should be, and rush headlong into something that he knows but little about.

The sheep raisers who parted with their flocks already see their mistake. They have also found out that men who follow other vocations are not making money very fast. Indeed the chances for the sheep men were never more flattering, everything considered, than they are at the present time. The tendency of late years has been more and more towards the Shropshire and Southdown in certain sections. No doubt they are the sheep for those convenient to good markets for "hot-house" lambs.

In the latitude of Michigan, where if early lambs are raised for market the ewes must be stabled most of the time and fed on feed that has been bought or can be sold for cash, I am inclined to think that there is no breed that will make more money in the end than the Merino. The lambs need not come until there is grass and the ewes do not need as much feed as if the lambs came in the dead of winter, which they must do if they are sold to advantage for spring lambs.

Perhaps the best way to treat the Merino lamb, to get the most money out of it, is to keep it until it is a yearling. They can first be sheared, then sold for mutton at a good price. At least the wethers should be sold at not more than two years old. We would advise selling yearlings as soon as the flock becomes large enough without them.

It is reasonable to expect that washed fine wool next season will be worth 25 cents a pound. If such is the case there is nothing lost in keeping a wether until he is two years old, for besides his fleece he will increase considerably in weight.

It is not many years ago that fine wool had the preference over any other, and mark the statement, the day is not far distant when it will again regain its lost place. In fact, manufacturers are to-day inquiring for fine wool more than any other.

The American people are yearly becoming greater mutton eaters, and the supply will not be in excess of the demand for years to come, if it ever is. The great flocks that once were herded on the plains of the West are not there to-day. It is true that vast flocks re-

main in Texas and the Northwest, but in many localities where the shepherd and his flock roamed not many years since, are to-day scattered throughout all that section, the settlers' homes. Fields of wheat and corn have taken their place to a great extent. Hundreds of thousands of sheep were rushed from this country during 1892 to 1894, when sheep became unprofitable everywhere. The ranges have been plowed up to a large extent, and the West will never be the sheep country it once was. The day when sheep raising will be profitable may not come during the next twenty years. Such at least is not apt to be the case, if a tariff such as we now have is in effect.

The Merino is the sheep for the average farmer to keep, for several reasons: First, they can be kept in much larger flocks (and remain healthy) than any other breed; second, they are both a wool and mutton type; third, their wool is going to command a good figure; fourth, they can get a living where other breeds would starve. Besides being a heavy shearer, from six to nine pounds average, they can be made a first-class mutton sheep, with a good sized carcass.

If you do not wish to buy pure-bred ewes to start with, and I hardly think it pays to buy them at say double the price of grades, buy a pure-bred ram, which can be purchased at from \$15. to \$25. Of course I am aware that there are much higher-priced sheep, but one that is good can be purchased for that figure. The paying of \$50 to \$100 for a ram is a thing of the past for the average farmer.

It is perhaps just as well to buy grade ewes for they can be bought at a much less figure than pure-bred ones. With the pure-bred ram the flock can be brought up in a short time. Sheep are hard to get hold of at the present time and one is almost compelled to take what is offered or do without. Many will be obliged to buy rather poor grade sheep or none at all. But few sheep are being offered at present that are exactly what is wanted, but with a good ram the flock can rapidly be brought up.

One large and successful sheep raiser said to the writer not long since that he considered the ram three-fourths of the flock. All sheep raisers are aware of the fact that the lambs look and take more after the qualities of the ram than of the ewes. Therefore the ram should be a good one at the start and all will be well in the end. It is advisable to get good ewes also, but at times like the present it is almost impossible.

The farmers who to-day own flocks will reap a financial harvest from them such as they thought impossible during the "dark days" of the sheep industry, from '93 to '96. Are we not at the eve of the palmy sheep days again?

ARTHUR R. HARDING.

SHEEP NOTES.

Ohio farmers are buying Montana sheep in large numbers for winter feeding, some 10,000 having been purchased at the Chicago stock yards within the past week.

The importation of Shropshires which are to be offered in connection with a large number of home-bred stock, at the public sale to be held at Concord, Jackson county, on October 13, have arrived in fine shape, and are reported to be a grand lot.

The Buffalo Mercantile Review says: Good quality well-bred ewes are still in excellent demand, and are generally outselling fat sheep. Farmers from all sections, particularly feeders in this state and Pennsylvania and Ohio, are in want of good ewes and will pay a good price for them, but common old ewes that are no good where shipped from should not be confounded with the class of breeding ewes that the feeders demand call for, and undesirable ewes as well as other grades of cull stock are simply culs on the market as they are on the farm, and sell for culs, and nothing else.

The scarcity of sheep in the Eastern States this fall has created a very unusual demand for breeding stock. There never has been such an inquiry for stock ewes for that purpose as there is now. A good, well-bred ewe will outsell anything on the market, and farmers from Ohio especially are urging their representatives here to get them some breeding stock. It is a hard matter to get the right kind, for every sheepman has a notion that things are coming his way, and there

is not much desire to part with anything that will help increase the supply. Sheep are prolific and quickly raised, and not a few sheepmen are of the opinion that the crop next year will be large enough to paralyze the markets.—Drovers' Journal.

The Denver Field and Farm says of the Lincoln-Merino cross: The big rangy Lincoln top for our western Merino ewes is this year taking preference over all other downies, and the call is for more bucks than can readily be supplied. One company has made a thorough test of the Lincoln-Merino cross, and it has given the longest and strongest cross-bred staple and the largest lamb of any experiment yet tried in their large flock of big, heavy-fleeced Merino ewes. The Field and Farm winds up its article by saying: We have all along felt the necessity for a large, hardy, rustling breed for improving the mutton carcass of our range Merinos, and the Lincolns are going to give all the other heavies a race for the honors.

If the date on the yellow label on your paper is Oct. '97, your subscription expires with this number. Send us your renewal now and avoid missing any numbers.

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CAREY FARM KENNELS.

Grange Department.

Our Motto:—"The farmer is of more consequence than the farm, and should be first improved."

Address all correspondence for this department to
KENYON L. BUTTERFIELD,
AGRICULTURAL COLLEGE, - - MICH.

News from Michigan Granges is especially solicited.

GRANGE LIBRARIES.

A library in a Grange hall is the most natural adornment that can be placed there. A library stands for education, learning, and advancement. If you go into a private house and find there a well selected library, even if it be a small one, you expect to find the owner intelligent and progressive. The fact that the Grange stands for education, development, and progress makes a library in its hall a suitable addition.

Through the earnestness of our State librarian and the bounty of the Legislature it has now become possible for Granges to have circulating libraries for a small sum. We are in most thorough sympathy with this movement, and urge Granges and other farmers' organizations to partake of the benefits of the system. But after all there is not so much satisfaction in borrowing a book as in owning it. The same is true of a Grange. The circulating libraries have their place, but every Grange ought to be accumulating a library of its own which remains in the hall and is used by one generation of Patrons after another.

At our request, Worthy Master Horton has furnished us with a description of the library of Fruit Ridge Grange. Our readers will find the article in another column. So far as we know, Fruit Ridge Grange has lived up to its opportunities in this line more fully than has any other Grange in the State. Yet what is possible at Fruit Ridge is possible in other Granges. We hope that we may learn of the experiences of other Granges along this line. We should like to hear from every Grange owning a library, as to how they obtained it, and the value it is in Grange work, as well as the methods of using it, etc. We hope also that the article of Brother Horton will stimulate other Granges to systematic efforts along these lines.

GRANGE NEWS.

JOHNSTOWN GRANGE NO. 127 is still among the live Granges. Its true members are but few in number, but are anxious to hold on to the old Grange ship as long as there's a plank left. Death occasionally enters our Grange and claims some one of our Grange family, our charter being at the present time draped in mourning in behalf of one of our charter members, Bro. Elias H. Bristol, who was a faithful member of our Grange for over 20 years.

Our binding twine, 2,040 pounds, purchased of the Peoria Cordage Co., of Peoria, Ill., gave entire satisfaction, and we hope to purchase a larger amount next year.

Allegan Co. GRANGE REPORTER.

BARRY COUNTY GRANGE.

Barry county Grange met with Glass Creek Grange No. 425, August 27. The day was hot and the roads dusty, but there was a large turn out. The forenoon was mostly spent in visiting and all partook of a fine dinner prepared by the sisters of Glass Creek Grange.

After dinner Grange was called to order in open session, under charge of our county lecturer, Sister Naomi Slawson. After a song by the Glass Creek Grange choir, the address of welcome was given by Sister Mary Newland, of Glass Creek Grange. Response was given by Bro. George Bowser, of Johnstown Grange No. 127.

One of the most noticeable features were the boys and girls in attendance who helped fill out the program with their recitations and songs.

The question as to what line of business pays best at the present time in a general way, was ably discussed by

Bro. D. C. Warner, C. A. Newland, Wm. Otis and others, followed by a recitation by Sister Adda Slawson, entitled "How I Learned to Skate," which took the house by storm. After a short recess Grange opened in the fourth degree. Glass Creek, Johnstown, Baltimore, Rutland and Orangeville Granges were represented; also members from Allegan county were present.

A resolution was passed that a committee of three be elected from county Grange members to make suitable arrangements for holding an annual Patrons' and Farmers' picnic. Bros. Geo. Replogle, Chas. A. Newland, and Geo. R. Bowser were elected; these with a committee of one from each Subordinate Grange will constitute said committee. The labors of the day being completed Grange closed in form to meet again with Orangeville Grange the fourth Friday in November.

PATRON.

WOLF CREEK GRANGE NO. 708 is in good working order, with a membership of 66 and four applications to act upon. We hold occasionally an open meeting, which creates an interest and always fills the hall. At these meetings a program is usually carried out.

We have received our timothy seed, ordered through the Grange. We find the seed first class, and some of the members state that they saved enough on their purchase of seed to pay their Grange dues for three years.

At a recent meeting we resolved to



No. 1—Road climbs a long hill past house. Hill ends at the right of the picture. By laying the road 30 or 40 rods to the right it would be as level as the foreground in the picture. The line of the road is shown by the fence and hedge row running from the center to the left and upward. \$100,000 would not make as good a road over the hill as could be made for almost nothing around its base.

it now is would not make as good a road as could be had for practically nothing by following around the foot of the hill.

Having located the line, you want to give your road the best possible grade, a smooth even surface, hard enough to shed rain and not be cut up by the wheels under any traffic it is likely to be subjected to. The nearer you can obtain these conditions the better. I believe there are but few country roads in Michigan that will ever require or pay for paving of any kind.

The railroads will continue to carry the heavy traffic between large places even more than they do now. The best roads should be the mainroads leading from the country into the railroad towns. There is occasionally a piece of exceptionally bad road that it will pay to pave if suitable material can be cheaply procured, but they are not numerous.



No. 2.—How Not to Do It.

In making the road, the first thing is to clear its bed of trees, stumps and other impediments. And right here I want to protest against the extra clearing that is sometimes done. The entire right of way is stripped of every vestige of a tree, bush or shrub. By all means take out whatever is necessary to the making of a good road, but when that is done, go slow about taking out the rest. There has been so

much timber cutting that had to be done to bring our lands under cultivation that a great many people have come to look upon a native tree or bush as an enemy that must be got rid of forthwith. I take many a ride about the country, for my health and pleasure, and the roads that I like best are those where the waysides have been let alone to grow up very much as they please. There in the hot days of summer the oaks and the hickories and the elms and the maples make a cool and

NATIONAL GRANGE MEETING.

Washington, D. C., Sept. 10, 1897.
Office of the Secretary, 514 F St., N. W.

Dear Sir and Brother:—In accordance with the provisions of its Constitution and the resolution adopted at the session of 1896, the Thirty-first Session of the National Grange of the Patrons of Husbandry will be held in the city of Harrisburg, Pennsylvania, commencing on "the first Wednesday after the second Monday in November" (10th) at eleven o'clock a. m.

The sessions of the Grange will be held in the Supreme Court Room.

Accommodations for the National Grange have been secured at the Lochiel Hotel (as headquarters), at the rate of \$2.00 per day each, including heat and light.

By order of the Executive Committee,

JOHN TRIMBLE,
Secretary National Grange.

COUNTRY ROADS.—II.

In my former article I called attention to the evils attending a bad location of a highway, because a good location is the most important point in securing a good road at the least expense for construction and maintenance, and also because that is the very thing to which the average citizen gives the least thought or care. Since writing that article I have taken a picture near home to illustrate the point. The road, in order to keep on the section line, climbs a long high hill on one side, only to go down it again on the other, a distance in all of nearly half a mile. If the road had been located forty rods further west or had wound around the base of the hill, it would have been as the saying is "as level as a house floor."

The position of the road is shown in the picture by the fences and trees running from the building at the left down the hill toward the right until they are hidden by the hedge row at the foot of the hill. The hill terminates at the extreme right of the picture. \$100,000 spent on the road where

grateful shade. There spring beauties and buttercups and cranesbill and violets and goldenrod and other sweet wild flowers abound. There grow the hazelnuts and there the aspen and sassafras and sumach glory in browns and yellows and scarlet when the autumn comes. And there the snow lies quietly where it falls in the winter, for the winds are held at bay, and there I find the best of the sleighing. In good truth we find along some of our country waysides the best and about all that is left of the glorious beauty which once made Southern Michigan such a paradise for the pioneers. And yet every year these pleasant wayside roads are being stripped of their beauty and the wild growth destroyed for no apparent reason except that somebody hates the sight of it.



No. 3—How It Should Be Done.

When the necessary impediments are removed, level down the hillocks and fill up the holes. When everything is ready for it, begin the grading or turnpiking. But do not begin any more work of this kind than you can finish thoroughly while you are at it. The common practice of plowing up the road and leaving the work less than half done is one of the worst curses of our country road making. It generally takes a year or more of travel and trials and tribulations to put the road in as good a condition as it was before it was touched with the plow. Of course there are hills to be cut down and hollows to be filled up where the grading will have to go on to all eternity to make good roads of them, but with these exceptions the road should be brought to the level or grade where it is to remain the first time it is broken up. If you cannot turnpike more than a dozen rods, finish the job in good shape while you are at it and never plow it up again. From that time on nothing but surface work will be needed.

Kalamazoo Co.

F. HODGMAN.

THE COUNTY CONVENTION.

The following from the by-laws of the Michigan State Grange will be of value and interest to Patrons, in view of the coming conventions to select delegates to State Grange:

Section 1. The voting members of the Michigan State Grange shall be chosen from the members, in proportion to one brother, and his wife (if a Matron), to each five Subordinate Granges, or the major part thereof, in each county; and one brother, and his wife (if a Matron), chosen by each county or District (Pomona) Grange in the State.

Sec. 2. Counties in which there are not the major portion of five Subordinate Granges shall be entitled to a representation in the State Grange of one brother and his wife (if a Matron).

Sec. 3. The selection of voting members by Subordinate Granges shall take place on the first Tuesday of October of each year, by a Convention of Subordinate Granges at the county seat of each county, unless the place of meeting has been elsewhere located by the last preceding annual Convention.

Sec. 4. At the annual Convention to elect representatives or voting members to the State Grange, each Subordinate Grange, not more than two quarters in arrears for dues or reports to the State Grange, shall be entitled to four Delegates, and no more. Such Delegates shall be chosen by ballot by the Subordinate Grange, which may also choose alternate Delegates. Each Delegate and alternate chosen should have credentials from his Grange, signed by the Master and Secretary thereof, and attested by the seal of the Grange. A Delegate can have but one vote in the Convention.

Sec. 5. Conventions of eight or more Granges may, upon the request of the majority of the Granges entitled to representation, divide the county or district into districts of contiguous Granges, in which case the representatives of each such district shall be elected by the vote of the delegates of the district so made.

Sec. 6. A county or district convention shall have the delegates of the majority of the Granges entitled to representation present, before districting or an election can take place. Failing to have a majority of the Granges en-

titled to representation present, the convention shall, after organization, adjourned to a fixed time and place, and send a notice of such time and place to all unrepresented Granges. The Delegates present at the adjourned meeting of the Convention shall have power to elect Representatives to the State Grange.

Sec. 7. Conventions may elect alternate Representatives to the State Grange, or may empower the Representatives-elect to appoint substitutes from among the Masters or Past Masters of the Subordinate Granges in the District from which they were elected.

Sec. 8. The President and Secretary of each Representative Convention shall give each Representative-elect credentials certifying his election, to be used at the State Grange, and said Secretary shall, immediately upon the close of the Convention, forward a certified statement of the election, with name and postoffice of each Representative elected, to the Secretary of the State Grange. Blank forms of credentials and certificates shall be furnished by the Secretary of the State Grange on application.

FRUIT RIDGE GRANGE LIBRARY.

I am asked to furnish to the Grange department of The Farmer a short account of what our library consists of, how much it is used, and what the Patrons think of it.

This library is owned exclusively by and for the Grange members. It is kept in a room separate but immediately off from the Grange meeting room, and is 12x12 feet and opens into the Grange room by means of a wide archway. Glass front cases with suitable shelving and sliding doors occupy spaces between windows and doors and are about seven feet high from the room floor. The library floors are carpeted, the walls beautifully frescoed, and the room is furnished with a large center table, four chairs and a large center hanging lamp.

The library was established about eighteen years ago.

For the purpose of buying books the Grange agreed to hold a series of six socials, the members to contribute to table supply and each to pay 20 cents for seats. These socials were so conducted as to draw largely from people not members of the Order. About \$125 was the result of the series. A special committee was authorized to buy books and procure library cases. Since the establishment of the library appropriations have been made from the Grange treasury for additional books.

The library consists of United States history, scientific subjects of considerable scope, some standard poetical works, natural history, travel, standard works of fiction, etc., all intended to be of a healthy character for the encouragement of good reading and valuable information. It is also intended to keep a complete series of some department reports, such as State Horticultural Reports, State and United States Agricultural Reports, etc.

At its first organization a committee was appointed to draft suitable rules for the government of the library, looking toward its preservation and growth. A librarian is elected by ballot at each annual general election. Members can draw books only at Grange meetings, and each book drawn is charged by the librarian to the member and credited off the record on its return. For keeping books longer than a specified time or damaging the same, small fines are collected and the money so raised is expended for new books. The librarian is at his table all through Grange meetings and is sufficiently well posted on the contents and character of the books to aid members, young and old, in making selections.

The library is well patronized by the members and is one of the strongest and most substantial supports to the Grange. It aids educational work as no other plan can, it encourages attendance at meetings and keeps permanently before the members and the community a visible, undisputed and substantial line of progress. It attracts the most intelligent class of people to the Grange, and encourages the uninformed to greater intelligence. No Grange can long afford to be without a library. Like any good work it requires a plan and a guiding hand to become useful. The Grange is especially well adapted to such work and it is its duty to assume such responsibility. A tree is known by its fruit, and likewise a Grange is judged by

the character of its work and the intelligence of its members. It is possible and within the easy reach of every Grange in Michigan to have a library. Money will go a long way now in the purchase of books. Engaging in and maintaining lines of good work is what makes a successful Grange, and the neglect or failure in this is sure to result in a useless and dormant one. Either course is open and easy. Which will your Grange choose?

GEO. B. HORTON.

LOW RATES FOR THRESHING.

HOW ONE COMMUNITY OF FARMERS MANAGED IT.

Bro. Butterfield asked me to describe the methods used by the farmers of Ensley in the Co-operative Protective Association, which they formed this past summer for the purpose of lowering threshers' rates to a just and fair amount.

Those that had the management in charge did not intend in any way to cut down the rates lower than a good living for the thresherman.

Let me state on the start that this was not wholly a Grange movement,

were plenty who condemned the movement and said that the plan could not succeed. Some even went so far as to say that the farmers who had united with the plan would have to whistle when they wanted to thresh.

Nevertheless the names kept coming in and the contract was let to an old thresherman of the community, who bought a good machine, and commenced operations. Then the work went merrily on. Every machine in the country surrounding dropped to threshing at a lower figure.

But the contract thresher was a man of principle and did good work at what he considered an honest price.

There were, of course, a few persons who could not stand prosperity and who gave their threshing to the lower rate machines, forgetting that while they paid a quarter of a cent per bushel more to the contract people, they were actually saving three times that amount. But the number of "kicker" had lessened and the plan was successful.

It was also an advantage to the thresher. He had steadier work, better returns, bigger jobs, a larger amount of threshing.

threshing bill within thirty days. It makes no difference whether a man has a large job and pays cash or whether a man has a small job and pays cash, each should receive the same per cent discount on each dollar.

Newaygo Co. JAS. B. HASKINS.

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No Sleep for Three Months.

One Cause of Sleeplessness That Can Be Readily Overcome.

Mr. Wm. Handschu, of 56th St., Connon Alley, Pittsburg, Pa., expresses himself as follows regarding the new remedy for that common and obstinate disease, piles: "I take pleasure in stating that I was so afflicted with piles that for three months I got no regular sleep; I became completely prostrated, the doctors did me no good; my brother told me of the new remedy for piles, the Pyramid Pile Cure; I purchased from my druggist three 50-cent bottles and they completely cured me. I am once more at my work, and but for this excellent medicine I should be on my back. I take great pleasure in writing this letter because so many people are sufferers from this trouble, who, like myself, did not know where to look for a permanent, reliable, safe cure."

Experience with the Pyramid Pile Cure in the past three years has demonstrated to the medical profession, as well as to thousands of sufferers from piles, that it is the safest and most effectual cure ever offered to the public, containing no opiates or poisons of any kind, painless and convenient to handle and being sold by druggists at 50 cents and \$1 per box, is within the reach of every sufferer.

Very frequently two or three boxes have made a complete cure of chronic cases that had not yielded to other remedies for years.

There is scarcely a disease more aggravating and obstinate to cure than the various forms of piles, and it is a common practice to use ointments, salves and similar preparations containing dangerous poisons to remove the trouble. The Pyramid has superseded all of these ineffectual remedies and no one suffering with any rectal trouble make any mistake in giving the Pyramid a trial.

If in doubt as to the nature of your trouble send to the Pyramid Drug Co., Albion, Mich., for a valuable little book on piles, describing all forms of the disease and describing the method of cure.

Any druggist can furnish the Pyramid Pile Cure, as it is the best known and most popular remedy for piles, and if you ask him he can doubtless refer you to many people in your vicinity who have been cured completely by it.



No. 4—Bad road work. Ridge in the middle compelling teams to take the sides. This is not by any means as bad an instance as many others in this vicinity, but it was near by.

but the Patrons gave their hearty co-operation, and I believe the plan is not in direct harmony with Grange principles.

There had been a feeling for years among the farmers of the community that they had a just cause for grievance, but had not they decided to abolish their grievances and also the cause, and steadily worked to that purpose, it is probable that matters would have been little different for the next 100 years or more.

One or two thinking farmers planned a scheme for operation and called a meeting quietly, at the Grange hall. Fifteen or twenty farmers were present, about half of whom were Patrons. A paper was drawn up and signed upon honor by the farmers present that they would stand by the work whatever the cost, and would make the plan a success! There is the whole secret of the enigma. Fifteen men with a purpose can accomplish more than 150 without a purpose.

It was agreed to pay certain prices for threshing wheat, barley, rye, oats and buckwheat. It was further agreed that every person benefited by the association would be obliged to pay the thresherman engaged the amount of thresher bill on or before 30 days after threshing, a great advantage to the thresherman.

A committee consisting of three prominent farmers was chosen by the association to transact the business of the association and also let the contract.

Then the fun commenced! Among both farmers and threshermen there

The contract thresherman has threshed out approximately 100 jobs, and will thresh out 15 or 20 more before the season closes. All of the largest and most desirable jobs were threshed by the contract man.

The competitive threshermen realize that the farmers have them foul and are beginning to see the points of advantage gained by the system and that the plan is perfectly just and equitable.

Next year, without doubt, the farmers will have no occasion to combine to protect themselves from exorbitant threshing rates, but if so there will be plenty of machines willing to take the contract.

The work of the Ensley farmers' co-operative system has been very successful, and we believe that every one that was connected with it is satisfied that he helped inaugurate an era of just and equal rights to all on the subject of threshing in Ensley.

Let me add that it was not wholly the exorbitant rates charged by threshermen that led to the adoption of this plan, but there was a practice growing popular by which the thresherman would thresh for one man nearly a half cheaper than his neighbor and the man that had the large job reaped the benefit. Then again the man with the small job, if he possessed the requisite amount of "nerve," could get a much lower rate than his neighbor with the large job. This was not fair nor just.

We believe that the only fair method by which a thresherman can give special discount with a clear conscience is for him to allow a certain discount providing the grain raiser pays his

No Fads

or untried devices in Columbia construction. Nothing is made a part of Columbia equipment that is not practical. The buyer of a Columbia bicycle can always feel that his money is well invested, and it secures for him the satisfaction of knowing that he has the best bicycle that money can buy or skill produce.

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Miscellaneous.

WHEN FORTUNE FROWNS.

When fortune frowns, lift high your head
And walk with manly, steadfast tread,
Nor heed what men may do or say,
But ever onward keep your way
With firm intent, with purpose clear,
Untouched by doubt, unknown of fear.

When fortune frowns, do not despair,
For life holds things both sweet and fair.
The future may mete out to thee
In fullness joy ungrudgingly,
Success your efforts may repay
For all the shame of failure's day.

When fortune frowns, she oft send
In recompense a faithful friend,
And with her chastening doth bestow
A peace that now we may not know,
Refining all our inner life,
Ennobling us for future strife.

—Emma Hodges in Boston Globe.

If the date on the yellow label on your paper is Oct. '97 your subscription expires with this number. Send us your renewal now and avoid missing any numbers.

DIAMONDS.

"Is your mistress at home, Alice?"

"No, sir."

Mr. Harwood smiled complacently, and proceeded up the stairs of his suburban residence with a buoyant tread suggestive of a mischievous schoolboy. He entered his wife's private apartment in a kindred mood, and after a searching glance around to assure himself of the housemaid's veracity, hastened to apply a small key to a rosewood cabinet.

"It was a fortunate inspiration of mine to appropriate this key this morning," he ruminated aloud, as he turned it in the lock, "but domestic discord would ensue if Nora suspected an ulterior design upon my part." He laughed softly to himself while he brought forth from the interior of the cabinet a leather case which, when opened, revealed an exquisite diamond ornament for the hair, convertible into brooches at its owner's whim. Then he drew from his coat pocket a similar case in which reposed the exact counterpart of the other jewels.

"Brunt has done his work well," he went on, as he took the ornaments from their respective cases and placed them upon a crimson velvet cushion, the latter to compare them. "Well, I wanted to give Matty something, and paste looks as well upon the stage as diamonds—to a man! But Nora, the sweet little puritan, abjures theaters and must never learn my connection with one of their fair artists."

Lost in admiration of the sparkling stones he was suddenly recalled to a sense of the danger of delay by the sound of carriage wheels brought to a standstill without. Not a moment was to be lost!

"But which in the world is which?" he muttered in dismay, as he snatched up first one ornament and then the other. "By Jove, I believe I have forgotten," and his brow grew damp beneath the harrassing doubt. "I certainly placed the original upon my right, and besides that is decidedly the brighter of the two. Ah, I hear Nora inquiring for me in the hall—her foot is upon the stairs! Great heavens! And I am not yet sure—pshaw! This is the little woman's," and thrusting one case into his pocket he hastily replaced the other in the cabinet.

"My dear Dick, what in the world are you doing here? You look as guilty as any surprised burglar!"

"Nonsense, Nora!" but his face mustered color at the not inappropriate smile.

"You ridiculous boy! But seriously, Dick, what did you do with the key of my cabinet this morning? I wanted—"

"Some trinket in harmony with your latest gown, I presume, interpolated Mr. Harwood suavely, as he fumbled unsuccessfully in one pocket after another for his wife's missing property.

"Careless fellow! Why, here it is upon the carpet," and Nora held up the key for inspection in such saucy reproach that her husband caught her in his arms and repaired his defection with a kiss.

"What have you been doing today, little woman? Shopping?"

"No; looking up my brother George, who is in sad trouble again, Dick."

"And likely to be, for of all the reckless spendthrifts—"

"He is in desperate need of £120."

"Not one penny of it will he get from me though, my dear. Only a month ago, when he was in difficulties, I told him that it was the last time I should liquidate his debts."

"He declares on his honor that he has been led into this last escapade by men whose characters are presumably unimpeachable."

"Rubbish! You must excuse me, my dear, but the word is expressive of the truth. He has made his bed, and must lie upon it. Once he feels the pinch of these things he will awaken to his folly."

"Yet, Dick, dear—"

"No good to coax, Nora. Assist him yourself if you like, but don't appeal to me."

"I might just as well promise him the moon as £120," she declared, ruefully, "for really, Dick, despite your liberality, my bank book is a bit shady at present."

"Naughty child! Is that a ruse to make me replenish it for that rascal's benefit? No, you must wait until the year is out, and in the meantime my purse is always at your disposal within reasonable limits."

"Help him for my sake!" she pleaded, tearfully, but her husband was not to be cajoled from his decision even by the tears of his winsome wife, to whom he rarely, if ever, denied anything.

When George Graham learned the result of his sister's generous intervention on his behalf, he knew his brother-in-law sufficiently well to understand that it was useless to pursue the subject further. Yet despair drove him a few days later to seek another interview with Nora, into whose sympathizing ear he poured out his troubles anew.

"What am I to do?" he groaned. "Non-payment involves such disgrace! If only I could get clear of this debt, I vow I would never trouble friend or relative again. Surely you can devise some means, sis, to get me out of this hole?"

"Unfortunately I have no surplus money at present, George, and Dick persists in his refusal."

"I know; but, Nora, you—you—" and the scapgegrace's voice sank to a shamed whisper, "you have jewels, dear! Could you not let—let me raise the necessary sum on some of them, and—and I assure you I will redeem them at the earliest opportunity."

"A Graham stoop to that!" cried Mrs. Harwood, in horrified dismay, her face crimsoning at the bare idea.

"Why not?" he queried, sulkily. "Who would be any the wiser? Of course, I would use a fictitious name. As for Dick, he will credit any excuse you proffer him if they are not forth coming when he wishes you to wear them. That diamond ornament Uncle Fred gave you on your wedding day would alone realize the amount I need. Come, think it over, sis. There is nothing I would not do for you if you were in a similar plight," and George placed a pleading arm about her neck, and bent his handsome face to hers.

"Dick would be very angry," she said slowly.

"There is no necessity to tell him anything about it."

"Are you sure there is no other possible way of obtaining the money?"

"None whatever," he said, gloomily, but none the less conscious that she was yielding to his plan.

"Very well, then; but please remember if anything disagreeable ensues, the suggestion was your own."

The ornament was handed over, but when George subsequently left the house with her uncle's gift, Mrs. Harwood was vexed at her own weakness. An unaccountable depression dominated her during his absence, and she was scarcely surprised to see him return with a disturbed and agitated countenance.

"It is evident that you have not been able to obtain so large an advance as you anticipated, George."

"It is not only that, Nora! Your diamonds are a delusion—mere paste! Moseley declares they are not worth more than 25 pounds!"

"What nonsense!" she cried, starting to her feet. "The man is an idiot! They cost 150 guineas, and I have Brunt's receipted bill for them still: Uncle Fred thought, and truly, that it might prove of use to me one day."

"Then let us go around to Brunt's and hear what he has to say. By the way, sis, old Moseley said it was a strange coincidence that Miss Royse, the charming actress at the Royalty, who is creating such a furor just now, brought him the fellow-ornament to yours but yesterday, only hers were real stones," and George glanced keenly at his sister as he ventured the statement.

"A fig for the actress! What has she to do with us? Ring the bell and

order the brougham at once, George! Mr. Brunt shall give us his written warranty that my jewels are diamonds. Paste, indeed! Your Jew can be no judge of such things," but when Mrs. Harwood, an hour later, met Mr. Brunt's amused smile as he took the case from her hand and examined its contents, her assurance ebbed away in dismay.

"You have made a not unnatural mistake, my dear madam. This ornament is decidedly of paste, and was made to your husband's order in this establishment last week. He expressly desired it to be the counterpart of the original setting, and as it would take a connoisseur to distinguish them, you have confounded the one with the other."

"How stupid of me! Of course that is precisely what I have done," exclaimed Nora, with assumed hardness, but rapidly paling face: "I am sorry to have so needlessly troubled you, Mr. Brunt," and taking her brother's proffered arm she was dimly conscious of walking slowly through the establishment to her carriage, resolved that no word or action of hers should provoke comment. But Dick of all men in the world to have deceived her—Dick, whom she loved better than life itself; in whose honor she had implicitly trusted from the first day they had met. Pride, anger and vexation struggled for the mastery as she reclined back upon the seat, and her eyes were bright with unshed tears.

"Don't take it so much to heart," whispered George. "A satisfactory explanation will no doubt be forthcoming."

"Of course it will," she said, proudly, quick to resent commiseration.

"And after all it is a relief to discover that Dick is not invulnerable," pursued her brother, equably, unable to restrain a thrust at his brother-in-law, whose refusal to aid him had engendered enmity.

"What do you mean? How dare you?" she flashed out petulantly, jealous—womanlike—of her husband's honor at other hands.

"What I say; for it is evident to me that your diamonds have gone to that pretty actress to whom the Jew referred. Otherwise, how account for the similarity of jewels and the exchange of your own?"

"Stop the carriage and leave me this instant, George! How dare you weave such falsehoods! Dick rarely frequents the theater."

"Hoity, toity! Nora, what a spitfire you are! Why, I know for a fact that your immaculate husband is often in attendance at the Royalty, for I have seen him flirting at the wings myself with this identical actress."

"Leave me!" she reiterated, passionately. "I will not be forced to listen to your slanderous tongue!"

"At your own door, sis, and not before. Why, here we are! By the way, what am I to do now for that money?" but she brushed past him and into the hall with ears which heard nothing but the knell of her own departed happiness, and eyes that pierced the gloomy future in abject misery. Life's sweetness seemed crushed out, and life's joy buried in a breaking heart.

Foolish little woman! She did not pause to reflect that the intrinsic value of the diamonds was of no moment to a man in her husband's position, and that it was absurd upon the face of it to imagine him risking detection and stooping to deceit over their exchange for paste. Jealousy had too deeply implanted her poisonous fang for reason to hold sway, the vision of the lovely actress, whose beauty Nora had frequently heard extolled, perverting her judgment.

Mr. Harwood glanced up in surprise as she entered his study.

"Why, what is the matter, Nora?" but she sprang aside as he advanced towards her, and stood with eyes that flashed in angry defiance behind unshed teardrops. "What is wrong, little woman?"

"Where are my diamonds?" she demanded, in a voice not quite under the proud control she would have evinced.

"What diamonds?" he asked in surprise, forgetful for the moment of the past.

"Don't feign ignorance," she cried, scornfully, "and deepen your deceit."

"Try and compose yourself, and explain your meaning," he said coolly, stung by her ill-concealed disgust. "What is it that I have done to offend you so bitterly?"

"Taken my diamonds, and given them to that horrid woman!"

"Your diamonds! Why, Nora—"

"And replaced them with paste!" she went on, hysterically. "How could you, Dick! How could you!" she sobbed, her fortitude crumbling away, and with it all the recriminations she had planned to utter.

But a light had flashed in upon Dick's denseness, and he threw himself in a chair and laughed until the tears came.

"It is no laughing matter, as you will find to your cost! When a wife discovers her husband making costly presents—at her expense, too!—to actresses, it is time they—they separated!"

"Silly child, to jump so hastily to conclusions!" commented Dick, sobering down as he began to realize that his wife was taking the affair seriously to heart. "Why, Nora, the charming actress who plays under the name of Royse is my sister Matty, not long since emancipated from the schoolroom, only as she has been finishing her education abroad you have never met her. When she wrote home declaring her intention of adopting the stage as a profession I was afraid to mention the matter to you. And as to the diamonds, dear—"

"Oh, never mind them, Dick! She may keep them and welcome!" and Nora's curly head rested penitently upon her husband's shoulder, and her hand stole into his.

"But they were not meant for her, little woman, and we will have them back again!" and Dick hastily explained his blunder, but his face clouded ominously when Nora, in answer to his query as to how she discovered the error, narrated the events of the day, including George's disturbing innuendoes.

"He deserves to suffer," said her husband sternly. "How dare he endeavor to poison your mind against me in that manner?"

"But how could he tell that Miss Royse was your sister? Be reasonable, dear."

"Who was unreasonable just now? And what of the separation?" he questioned, with a sly smile.

"It was simply horrid of me! Please don't ever mention it again, Dick," and her fair cheek rested against his in soft pleading.

"Not much faith in your husband, eh? I wonder if my wife will now cast aside her prejudice of the stage for Matty's sake?"

"No, but for yours she will, Dick."

"My darling! But Nora, Matty must have been in some exceptional strait to dispose of my gift in that way."

"Suppose we go to the Royalty dinner and solve the enigma between the acts?" proposed Mrs. Harwood, with a demure smile.

"And we need not regret that diamonds were paste and paste diamonds after all," he laughingly declared, as his lips touched hers in fond appreciation of her concession, and as a token of mutual reconciliation.

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For the Michigan Farmer.

THE GENERAL PURPOSE COW.

If your correspondent, Mr. Josiah D. Smith, had made it plain he was writing to dairymen only I would not think of writing a word in opposition. If I were about to engage in butter making—making that my business—I would not think of any cows but butter cows. I would want the best I could find and afford to buy, and I would want a bull that came of a butter-producing family. General purpose cows don't concern such men. Men who make a business of breeding and racing the trotting horse don't care for general purpose horses, coach horses or heavy drafts.

But there are good horses that can't go a mile in 2:15, neither do they weigh a ton. And there are good cows that can't make 300 pounds of butter per year. And there are more men who can use and enjoy the slower horses and the 200-pound cows than can do justice to the 2:15 horse or 300-pound cow.

There are not many farmers but keep some cows and sell the surplus butter. Some of this butter is awful, I admit, but most of it is good—at least I have found it so.

We have got to have the cows—we need the milk—the butter we could buy. There are more of these cows making 200 pounds of butter, and over, than Mr. Smith dreams of. This fall their calves, at 12 months, are bringing \$20 to \$25 on the farm, and when the old cow is past her prime she will bring \$35 from the drover. If we had Jerseys we might (?) make another 100 pounds of butter; but not making enough to sell to the honest commission man, we sell it at the store at 8c in summer and 13c this fall. The calves at a year old won't bring \$15 and the old cow is hard to sell at \$20.

Such letters as Mr. Smith's has helped fill the country with scrub cattle that are not worth powder to shoot them with, and the quantity of butter per cow has not increased either.

I speak what I know and testify what I have seen when I say that most of the dairy-bred cattle among us common farmers won't give as much milk or make as much butter as our neighbors' Shorthorns.

I have not a word to say against the Jersey or any other butter breed when they are good and in good hands. A good Jersey to a dairyman is worth more than a good deep-milking Shorthorn, but for common farmers—the great majority of us—the specially-bred and carefully-reared dairy cow is a delusion and a snare. A man don't have to travel far in Michigan to convince him a scrub dairy cow is the most useless thing on four legs.

E.

For the Michigan Farmer.

MEN, WOMEN AND CALVES.

In any calling, not the men or women who accomplish the greatest amount of work in a given time are the most successful. If they can concentrate their efforts on some one thing, there are farmers galore who, in a few hours, or days, will perform an almost incredible amount of labor.

For big days' work there is none better; but daily painstaking in details, week in and week out, is distasteful. The patient plodding necessary to success on the farm, from its very monotony, is irksome.

Is it housecleaning? Is there a big washing? A rag carpet to be made or a quilting on hand? There are women who will work with might and main, day and night, until all are accomplished; but they can't spend time to pick up the raveled ends. The everyday "here a little and there a little" is too much bother. You will need to search no farther to find one of "the little foxes that spoil the vines."

"Success is not reached by a single bound, We build the ladder on which we rise, And we mount its summit round by round."

Cows are an important adjunct of the farm. Men and women, wise and otherwise, at conventions, farmers' institutes and through the press, tell us "all about dairying," but the raising of

calves for profit receives only a modicum of attention.

We have in years past given especial attention to raising calves, in a small way, with gratifying success. To raise good calves and rob the milk-pail the least was the problem to be solved then when butter brought a good price. Is it not an equally important problem now when dairy products have gone down to "bed rock" prices? Is it not imperative that we make the most of everything we have?

The general plan was to raise a calf from each cow, fit it for beef and put upon the market at from twelve to fifteen months old. The cows were high-grade Shorthorns, the calves coming in March or April to get a good start before very hot weather.

They were separated from the cows when twenty-four hours old, but kept near, within sight, for three or four days. For two weeks each one was fed, twice a day, from two to three quarts of milk warm from the cow. The third week one-third more of warm, sweet, skimmed milk that had stood twelve, then twenty-four hours. The quantity was gradually increased until they took all the milk. When a month old a little cut grass and sweet, tender hay was given.

The time of changing from sweet to sour milk is a critical period. Great care must be taken to prevent the calves from getting off their feed and scouring. One pail of sweet milk made very hot, not scalded, will warm two or three that could not otherwise be heated without whey. A little soda is of great advantage. We used soda to sweeten the milk whenever it was thick.

When they became accustomed to the change the milk was warmed with gruel, made of one-third old process oil meal and two-thirds fine white middlings, prepared as carefully and as free from lumps as if for the table. Half a teacupful apiece of this mixture for a feed was given at first; then increased to a teacupful, with a little more if for any cause the milk was short. They were fed regularly as to quantity, quality and time. Upon this regularity we largely base our success.

When about two months old they were turned to pasture and a feeding trough was a necessity; previously each when fed had been tied. The trough was made with partitions, each calf soon learning its place and kept in it by an arrangement of stanchions. The parts that opened and shut ran up through a morticed board on the top and were fastened with a pin. Six or eight calves could be shut up or let loose as easily and as quickly as one.

As the grass grew dry or scant a little extra meal, equal parts of corn and oats, was added to that of which the gruel was made. This was increased until the winter ration was six quarts a day, with the addition of hay and roughage. The meal to be fed at night was scalded in the morning with boiling water and covered until fed, then mixed with what milk there chanced to be, and the same at night, for morning's feed. The calves never missed having a warm meal from the time they first saw the light until they passed into the butcher's or dealer's hands.

They varied in weight at twelve to fifteen months old from 750 to 850 pounds. The figures show that they averaged, during the years when sold, not less than \$25. Once a pair of steers brought \$64, lacking a few cents. At one time I remember four yearlings frisked out of the yard, leaving in lieu thereof \$100.

These prices cannot be commanded now, but raising calves is still profitable. A year ago last May we sold a yearling for \$20. Last May we were offered \$15 by the butcher for a calf seven months old. Raising calves is work that women can do. Our seven-months-old "Billy" always had his warm meals prepared and served by feminine hands. To raise good calves requires time and care, patience and perseverance.

You can't be away at feeding time gossiping with your neighbors, at the sewing society or club—you must be there yourself, not leave Susie or Jamie or the hired man to feed the calves. However well directed, they may take their own time, may pour the milk cold into the trough and leave the animals to shift for themselves as best they may.

If women would be sufficiently painstaking and help rear good calves, are there many men who would not

cheerfully give them a fair share of the money they bring? We think not.

SARAH E. WILCOX.

(This is along the line we have contented for some time. The by-products of the dairy must be fully utilized, especially in these times, in order to secure the maximum of profit possible to those who intelligently work for it.

We have, heretofore, used all our skim milk for feeding Duroc-Jersey pigs (up to six months old), and the heifer calves from our best cows. Having no extra room, and not enough milk to spare, we have sold all bull calves to feeders. But we now expect to feed even these ourselves, as we believe, with Mrs. Wilcox, that it will pay to do so.—Ed.)

For the Michigan Farmer.

MILK FEVER TREATMENT.

I notice in a recent Farmer an article on milk fever in cows. I have had some experience in that line.

At one time I had a cow taken with milk fever so bad that she could not get up before I discovered there was anything wrong. I have no doubt it was caused from drinking too much cold water.

As N. B. did not give any remedy, I will give the one I used, and which effected a cure in that case, as well as a number of others I have known of.

I went to the nearest drug store and purchased fifty cents worth of quinine, also one pint of the best whiskey. Then took one-half of each and mixed them together and gave the cow, and in two hours gave the remainder.

I did no more for her, except to milk what I could (which was very little) every hour or two. In five or six hours she began to get better, and in twenty-four hours she stood on her feet (by having help to get up), long enough for me to milk her.

I kept the cow a number of years. Had no trouble afterwards, and she came in fresh every fall. If I feed whole, dry oats for two weeks before calving I never have any trouble with afterbirth.

Lenawee Co., Mich. B. M. COLEGROVE.

Our Paris correspondent, speaking of dairying in France, says that microbes are becoming an article of commerce, as in the case of Danish ferments for milk and Austrian yeast for bread. Why not import the microbes that effect the retting of flax? The agricultural society of Lille has allocated 4,000 francs during three years to the Pasteur Institute of that city, to secure the same qualities for the waters in the north of France—the flax growing region—employed in steeping flax, which is so peculiar and favorable to the rivers of Belgium. It appears that of the great families of microbes, some in Belgium at least, whether due to the soil or the water, make a specialty of separating the filament of flax from the woody fibre of the stem; they feed and live upon the gummy or agglutinous substance. The bacteriologist at Lille is to devote from October 1st next, three consecutive years to the study, and when he has solved the difficulty, by showing the possibility of preparing a running stream up to the retting standard, he will be bound to take out no patent for his discovery, but give it to the world free.

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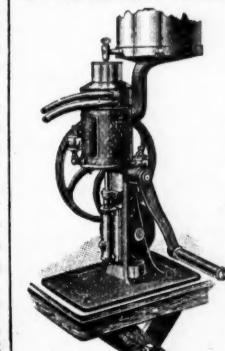
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SYRACUSE, New York, 303 to 309 Lock St. Contractors and Builders of Butter and Cheese Factories. Manufacturers and Dealers in Supplies. Or write R. E. STURGIS, the Gen. Manager of Western Office, Allegan, Mich.

Improved U. S. Separators
For the Dairy and Creamery. Turn by Hand, by Belt, or by Steam Turbine. Sizes to suit all. We have everything for Dairy and Creamery Circulars Free. Vermont Farm Machine Co. Bellows Falls, Vermont.

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THE DE LAVAL SEPARATOR CO.,
RANDOLPH AND CANAL STS.,
CHICAGO.

74 CORTLAND STREET,
NEW YORK.

THE MICHIGAN FARMER

—AND—

State Journal of Agriculture.

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No deviation from above rates.

DETROIT, SATURDAY, SEPT. 25, 1897.

This paper is entered at the Detroit Postoffice as

Second class matter.

If the date on the yellow label on your paper is Oct. '97, your subscription expires with this number. Send us your renewal now and avoid missing any numbers.

Mr. Kenyon L. Butterfield, Superintendent of Institutes, informs us that a series of institutes have been arranged for the Upper Peninsula, to be held as follows: Stephenson, October 5 and 6; Quinnesee, October 6; Rockland, October 8; Paynesville, October 8; Iron River, October 11 to 13; Bates, October 11.

A correspondent, in last week's Farmer, had an extended article on hop culture, in which the writer, Jennie M. Willson, said: "With a few suggestions as to the method of cultivation some enterprising young man may be persuaded to start a hop yard." We sincerely hope not. The industry is dead in Michigan, and its revival would surely prove an exasperating and costly business to those who embarked in it. Time was when Michigan was a hop-growing state, and after watching the market carefully for 15 years, we concluded that the chances of making and keeping money in hop-growing were even less than in wheat options or lotteries. We have seen hops sell at over a dollar per pound, and two years afterwards at 5 cents. It is a crop that requires constant watchfulness all the season, to protect it from lice and kindred vermin. It requires capital to start a yard, buy poles, provide additional labor, pay cost of picking, build a kiln, and cure and bale the crop. At present prices in New York city, 10 cents per pound for best New York State, and 11 cents for Pacific Coast, there is neither pleasure nor profit in the business, and with the immense yards now cultivated on the coast, nothing but a positive failure of the crop could insure remunerative prices to farmers in this State. The yeast cake business is not extensive enough to cut much of a figure in hop-growing. It is the brewer that is, and must continue to be, the main reliance of the hop-grower. We think farmers will find nearly any crop more remunerative than hops, taking the average returns for several years.

THE STRIKE ENDED.

The great coal strike has ended and most of the miners, after several months of idleness, with the loss of millions in wages, are again at work. What has been accomplished by the strike it is difficult to say, except that a number have met a violent death, numbers of others have been more or less injured, the State of Pennsylvania has been put to heavy expense through the militia having been called out to maintain order and the mine operators have lost millions of dollars through the closing of their mines. The only parties who appear to have come out of the struggle without financial loss are the agitators and leaders, whose importance has been magnified, and their pockets filled, as a reward for their exertions in bringing about the strike and preventing an earlier settlement.

Between the strikers and operators there is little to choose. The operators, to secure cheap labor, have filled the mining regions with a class of people gathered from the lowest classes of southern Europe, whose ideas of right and wrong are bounded entirely by their necessities and opportunities. They have been brutalized by years of tyranny and oppression, and it is difficult to make them understand the difference between liberty and license, between the necessity for the maintenance of order and governmental oppression. They do not value life or the rights of property, and regard the taking of one or destruction of the other as quite a matter of course under the freedom promised them in this country. For their presence in the coal regions the mine operators are wholly responsible, and if they have lost millions of dollars through the actions of these Italians and Poles, they are not entitled to sympathy. They brought these people in because they would work cheaper than the American, Irish or English miners, and having supplanted them are now clamorous for higher wages and greater privileges. We do not believe what they asked for was more than they were entitled to, and we fully believe that if their demands had been made in a business manner, without threats of violence, or the attempt to coerce those who did not want to join them, they would have been acceded to. Not that the mine operators would willingly pay them higher wages, but that public sentiment would finally have compelled them to treat their men with more respect and consider the justice of their demands. But when the agitators proceeded to inflame the minds of the strikers against everyone who owned property, and to prove to them that such property could only be acquired by robbery and oppression, all hope for a peaceful solution of the trouble was at an end. The strike resolved itself into a fight against the enforcement of the laws and the protection of the lives and property of individuals. When the strike assumed that phase, it was as sure as anything could be that had not taken place, that blood would be shed before the trouble was settled. The question of the right or wrong of the fight between the deputies and strikers will be determined by the courts, but back of it was the work of the professional agitator.

A. H. S., Gobleville, Mich.; inquires how to cure and thresh sunflower seed. We have never seen sunflowers grown on an extensive scale. In a small way the heads are gathered when ripe, put in a dry place, and when convenient are spread on a clean barn floor and the seeds threshed out with flails. The heads are then raked off, the seeds gathered and run through a fanning mill.

THE GREAT LAKES AND THEIR MERCHANT MARINE.

From advance proofs of the statistical report the United States Commissioner of Navigation we learn that the greatest gain in tonnage in the U. S. merchant marine the past year was on the great lakes. The gain in lake tonnage is sufficient to make good the losses in other portions of the country. The report shows that during the year ending on June 30 last the increase of vessel tonnage throughout the country was only 65,400 tons, while on the lakes it was 86,000 tons. The difference of about 20,000 tons represents a decrease on the Atlantic and gulf coasts. Pacific coast tonnage was virtually stationary.

The documented merchant marine of the country on June 30, 1897, numbered 22,633 vessels of 4,769,020 gross tons. The tonnage of the Atlantic and gulf coasts is 2,647,296, while that of the lakes is 1,410,103. The steam tonnage on June 30 amounted to 6,599 vessels of 2,358,558 gross tons, an increase of 51,000 tons over the previous year. Nearly all of this increase is on the great lakes, where steam vessels number 1,775 of 977,235 tons. The average tonnage of steam vessels on the lakes is, therefore, 551, which is quite large when it is considered that the compilation includes harbor tugs and other small vessels.

New York state has the largest merchant marine, 4,857 vessels of 1,331,743 gross tons, an increase of 27,000 tons. The state exempts from taxation its tonnage in foreign trade. Michigan ranks second with 1,132 vessels of 477,602 tons. Ohio vessels are the largest and most modern, numbering 558, of 390,052 tons. Maine's fleet numbers 1,871 vessels of 209,592 tons. Steel and iron vessels number 1,023, of 1,207,222 tons, an increase of 117,000 tons. During the year sixty-eight iron or steel vessels of 124,395 tons were built and documented. Vessels registered for foreign trade number 1,230, of 805,584 tons.

The importance of these waterways to the business of the country can be easily understood when the carrying capacity of this immense fleet is considered. It would be nearly impossible to move the immense grain crops of the northwest to market without the aid of the fleet of vessels which float over the great lakes. Railroads would simply be smothered with grain, and the end of the crop year would still see vast amounts stored in the west, waiting for an opportunity to reach the world's markets. Then the cost of carrying freights between the east and the northwest has been reduced to a minimum by the fleets of steam barges with several vessels in tow, and this has been a boon not only to the grain growers, but to the commerce of the entire country, for it has enabled American grain to compete successfully for the world's markets, though it may have been grown 2,000 miles from the seaboard.

CONDENSED MILK.

A medical journal, published at Philadelphia, called the Medical World, has attacked condensed milk as a food for infants. Editorially it says:

"Condensed milk, as a food for infants, is not only deficient in protiens, but it is necessarily totally deficient in fats. This is at once evident, for if the fat were preserved, it would unavoidably become rancid and thus vitiate the entire product."

The Medical World seems to be unaware that condensed milk contains all the solid constituents of milk, both casein and fats, and that whole milk is, as nearly as possible, a complete food for infants, or for grown people. The process of condensing

merely eliminates a large proportion of the water, all the solids being retained. To the milk is added a certain amount of the best granulated sugar, which certainly does not injure its value as food, but adds to it. Some cows give richer milk than others, milk that contains more butter fat, while others contain more casein. This casein is a proteid substance, and constitutes the main portion of the curd when separated from the milk. It is always a chief constituent of milk, and how condensed milk, which contains all the casein present in whole milk, can be deficient in protiens, is a problem we would like the Medical World to solve.

We have two condensed milk factories in this State, one at Lansing and one at Howell. The product of both is recommended by physicians for infants, and we have never heard of a case where any ill effects followed. It is frequently found to be superior to ordinary milk for infants, and is especially recommended in cases of bowel trouble.

Years ago we had a good deal of experience in this direction and at the instance of an experienced physician of this city, began using condensed milk for several young children. It proved just what was required. The physician explained that in the process of condensing, the heat killed out all germs, and then its being hermetically sealed prevented others getting access to it, and it was therefore the safest form in which milk could be given to infants. We found it so.

At a meeting of English, German, and Polish speaking socialists at Buffalo last week, dollar wheat was denounced by several speakers, who claimed that the higher price only meant dearer flour for workingmen. As the workingmen have had extremely cheap flour for the past four years, and yet claimed to be in worse shape than for many years, perhaps their condition will improve under high prices. They may buy less beer and more bread hereafter, which would certainly be a great boon to their families.

A correspondent at Brighton, Livingston Co., reports that a man has been among the Shropshire breeders of that vicinity, pretending to be buying registered Shropshire ewes, or those eligible to registry; but he did not buy any, and was trying to work another scheme, which he did successfully in some places. Our correspondent explains this scheme: "He represented himself to me as a certain Shropshire breeder of Charlotte, Eaton Co., and registered at Brighton under another name. He gets into the confidence of his victims, and then offers to send them different articles which he has, such as oil meal, seed wheat, and alfalfa clover seed, and takes money for it, and that is the last of the stranger or seed wheat or anything else." Our readers are cautioned to look out for him.

The United States consul at Amoy, China, says, in a recent dispatch to the state department, that the Chinese people prefer American cotton fabrics, spinnings, flour, oils, canned goods and meats, and even buy them at higher prices than other importations can be had for." He also says "there is a more amicable feeling existing between the natives and foreigners at Amoy and in the surrounding country than probably exists at any other port in China. He thinks the rapid increase of trade between the United States and that part of China should command the attention of American merchants and of the United States government.

In thousands of homes Hood's Sarsaparilla is constantly kept as a family medicine.

A PECULIARITY OF THE COUNTY ROAD LAW.

The people of Ludington, Mason County, wanted to hold a special election to vote on a proposition to issue \$9,000 in bonds to repair some bridges in the rural districts, and at the same time vote upon the rescinding of the county road system adopted by that county under the constitutional amendment adopted three years ago. Now comes the funny part of the county road system. It is contended that the people of the county, having once adopted the county road system under the constitutional provision referred to, it must remain in force, and cannot be rescinded either by the people of a county or by legislative enactment. The new constitutional clause makes no provision for the rescinding by any other power than the customary way of repealing constitutional provisions. It must be submitted to the people of the State at a general election, after the legislature has agreed to its submission. This is a phase of the new county road system which will not incline the residents of a county to adopt it. They will decide to struggle along with the old district system of road-making, while watching the efforts of those counties which have adopted the new system to relieve themselves of the burden.

The San Francisco Chamber of Commerce has received a communication from Consul-General Warburton, representing Great Britain at that port, giving notice to the shippers of California of a new act added to the importation laws of Great Britain. The act was recently passed by the British Parliament, and, in effect, prohibits the importation from any foreign port of prison-made goods, unless such goods shall have been made in the penal institutions of any member of the United Kingdom. At present most of the California grain shipments are made in jute bags which are manufactured in the jute mills at San Quentin by convicts. If it is held that the shipment of grain in prison-made bags will affect the contents of the bags, endless annoyance and confusion will be caused, and local shippers will be compelled to buy bags somewhere else.

DAIRYING AND THE STATE AGRICULTURAL COLLEGE.

Agricultural College, Mich., September 18, 1897.

to the Editor of the Michigan Farmer: As the senior editor of The Michigan Farmer will well remember, one of the first interviews I ever held with citizens of this State was with him in one of the rooms at the State capitol. I had come fresh from the dairy districts of southern Minnesota, and carried some of the western enthusiasm on dairy subjects with me. Our interview related largely to the then condition of the dairy business in this State and the outlook for the future. An examination of the statistics concerning dairy topics had shown how scant those statistics were and what a half-hearted and unscientific way the farm dairies as a whole and most of the factories in Michigan were carried on. What could the College do to better these conditions? What aid could we extend. These were the questions which were discussed. The sole conclusion to which we arrived was that through the institutes, dairy knowledge should be carried directly to the farmers who keep the cows, through courses in live stock husbandry and home dairy work. The young men and women from the farms should be taught how to select and care for a dairy herd, how to care for the milk and how to make good dairy butter. But this is not enough, when the welfare of the State at large is considered. Wherever the dairy business best thrives the butter and cheese are made in factories and not on the farm. For this reason your editor and the State Board of Agriculture were in accord with the proposition that the

College ought to offer courses fitted for the training of butter-makers and cheese-makers competent to operate successful factories.

With these ideas in mind the College offers a course in cheese making, beginning November 29 next, and continuing for four weeks, as advertised in another column of this issue. While we cannot take the raw and inexperienced youth and make a thoroughly posted and competent cheese maker of him in four weeks, we can teach him the general principles that underlie the art and get him practiced in the best methods of handling the milk and curd and making cheese.

That there is much need of this work in this State none will deny, but I cannot resist the temptation to quote a paragraph from a letter recently received from a large cheese buying house in the East. Speaking of the cheese course they say: "If it succeeds in reforming your people so that they will make decent cheese, it will accomplish a good deal. We have quite frequently made trips over there for the purpose of buying cheese made in the factories in that State, and of all the rubbish we have ever seen, we think theirs is the worst. We cannot imagine how the people over there can manage to eat it." While this is a rather bad reputation for the State to sustain outside of its borders, it is my opinion that the condition of affairs is still worse within. Far be it from me to say that all the cheese made in Michigan is bad, but so much poor cheese is made that our reputation is ruined abroad and the counters of our grocery stores are so loaded with the poorer sorts that the people never know any other kind, and refuse to consume cheese, because they are never allowed to know what good cheese really is. This is in spite of the good work done by the really well managed cheese factories in the State.

For the course in cheese making a sufficient quantity of milk and equipment will be provided. Most important of all, an instructor will be selected who is not only most thoroughly skilled in the art of making cheese, but who has a well grounded education in the general principles underlying the handling of milk, and has besides the ability to impart his information to others. Do not for an instant think that we are going to take a lot of Michigan cheese makers and teach them empirically how to make a dry, slow-curing cheese, fit for export only, to the exclusion of a full and fair discussion of the merits of other styles of the article. We hope that our cheese makers, when they leave the College, will be adapted to the wants of any cheese factory and will invariably make good cheese, whether slow or quick curing, and of whatever style desired. Just as soon as we make better cheese more of it will be eaten by our own citizens, the greater will be the demand, the better the sales and the greater the profit to the farmer.

The experience of other states has demonstrated beyond all peradventure the usefulness of the cheese-making course in a dairy school in accomplishing this object. It is no longer an experiment. We therefore bespeak for the course the patronage and good will of cheese makers and farmers.

I cannot go over the details of the work in this letter, but I can assure every experienced cheese maker now at work in a factory, and every young man who desires to learn the art, that he will find in the course the directions and suggestions which will be most helpful to him.

C. D. SMITH.

Mr. Jas. T. Peek, of Rives Junction, Mich., who has been advertising seed wheat in The Farmer, writes as follows: "I have shipped wheat all over Michigan, and have no fault to find. I want to thank my customers, as I feel very grateful to them, and if there is any one dissatisfied, would be glad to hear from him. Advertising pays."

An attempt to assassinate President Diaz of Mexico occurred last week. It was Mexico's independence day and the president was out viewing the display when a stranger attempted to take his life with a poniard. The would-be assassin was arrested and later was taken from the jail by a mob and lynched. President Diaz now states that the lynching was an act bringing reproach upon the Mexican nation and is making earnest efforts to have the guilty parties severely punished.

NEWS SUMMARY.
Michigan.

Damaging frosts are reported to have occurred pretty generally throughout the State during the past week, the first of them occurring last Friday night.

Iron River has secured a new industry—a stave mill plant costing \$30,000. The city gives the company a site and 150,000 feet of elm timber, besides remitting the taxes for ten years.

The new office of State Inspector of Orchards and Nurseries, created by the last legislature, has been filled by the appointment of Prof. U. P. Hedrick, of Oregon Agricultural College.

The deep-waterway commission appointed to investigate the feasibility of and select routes for a deep ship canal between the great lakes and the Atlantic has selected permanent headquarters in Detroit.

The Pere Marquette Lumber Company, one of the principal industries at Ludington, has closed down its lumber mill and salt block and will go out of business. About 100 men will be thrown out of employment.

The yellow commissioners have been playing havoc with the peach orchards in the vicinity of Benton Harbor. In Hagar township 245 trees are reported to have been condemned and it is believed that several trees have been found that are affected with the genuine San Jose scale.

Enos Goodrich, one of the pioneers of the State, died at Fostoria last week. He was a member of the legislature of 1847 and played a prominent part in having the State capital removed from Detroit to Lansing. He was born in New York state, but had been a resident of Michigan for over sixty years.

The First National Bank of Benton Harbor did not open its doors last Saturday morning and Bank Examiner Caldwell, of Detroit, took charge of the institution. The bank had a capital stock of \$50,000, with \$40,000 surplus. It owes depositors about \$90,000 and it is believed that not more than 75 per cent. of this will be realized.

Smooth-tongued individuals, claiming to represent the State Board of Health, are reported to be imposing upon farmers in various parts of the State. They pretend to have been sent out for the purpose of examining the water supply on the farms. They invariably find the wells full of microbes and bacteria and finally allay the fears of the terrified farmer by selling him a good supply of some worthless so-called disinfectant. The matter has been brought to the attention of the Board of Health and that body has issued a statement warning all good citizens to beware of these impostors.

General.

Patrick Jerome Gleason, mayor of Long Island City, was nominated for mayor of Greater New York at a meeting of his supporters held in Cooper's Union, New York City, last Saturday.

New cases of yellow fever are being daily reported from New Orleans, Mobile and neighboring cities and the fact that the plague appears to be advancing northward is causing the authorities of many of the Mississippi river towns considerable anxiety. Measures are everywhere being taken to prevent the spread of the disease. Dr. J. A. Egan, secretary of the Illinois state board of health, has ordered a quarantine at Cairo against passengers from Louisiana, Alabama and Mississippi.

FOR 30 DAYS YOU CAN TRY IT FOR 10 CENTS.
RHEUMATISM, NEURALGIA,
Catarrh, Asthma, La Grippe.

THEIR MARVELOUS
CURE BY



[TRADE MARK.]

WE claim and can prove our statement that more cures have been effected by "FIVE DROPS" during the last two years than all other remedies combined. It cannot fail. More than 1,000,000 People Cured. As a positive cure for Rheumatism, Sciatica, Neuralgia, Dyspepsia, Backache, Hay Fever, Catarrh, Sleeplessness, Nervousness, Neuralgia, Headaches, Heart Weakness, Toothache, Croup, Swelling, La Grippe, Malaria, Creeping Numbness, etc., etc., "5 DROPS" has never been equalled, and is a pleasant prompt and permanent cure. Though free from opiates and perfectly harmless, "5 DROPS" is the most concentrated and powerful specific known. No disease is too deeply rooted or painful to yield to this wonderful medicine, and relief is usually felt the very first night. What it has already done to relieve suffering humanity is told in letters of grateful praise from thousands of hearts once sickened and heavy with pain, now painless and happy.

GENTLEMEN:—I can hardly find words to express my gratitude for what your "5 DROPS" has done for me. I have taken but one bottle of the medicine, and I feel like a new person. I have taken all kinds of medicines, but all together did not do me as much good as the first dose of your "5 DROPS." I recommend your medicine to one of my neighbors and it helped him right away. He had been using medicines and doctoring but nothing seemed to do him any good. I believe the Lord has sent your medicine, and if they will only have faith, it will cure them of their Rheumatism. I almost believe it would bring a dead man to life again; such is my faith in the medicine. I am 96 years of age.

Yours truly, C. H. B. CROSBY, Bowers Hill, Va.

GENTLEMEN:—Some months ago I sent to you for a bottle of your medicine for Rheumatism and I used it for six weeks in accordance with your instructions—five drops each evening on a piece of sugar, and the dose was half an application as per directions, and I am glad to say that it cured me entirely of my Rheumatism. I enclose herewith one dollar for a bottle to be sent to my friend, Mr. —, who is a sufferer, as I was, with Muscular Rheumatism. By so doing you will greatly oblige.

Yours truly, E. S. NICCOLLS, Marfa, Tex.

"5 DROPS" taken but once a day is a dose of this great remedy, and to enable all sufferers to make a trial of its wonderful curative properties we will send out during the next thirty days 100,000 sample bottles for 10 cents each, prepaid by mail. Even a sample bottle will convince you of its merit. Best and cheapest medicine on earth. Large bottle (300 doses) \$1.00. Not sold by druggists, only by us and our agents. Agents wanted in new territory.

SWANSON RHEUMATIC CURE CO., 167 & 169 Dearborn St., Chicago, Ill.

No matter how good
your facilities are, the
use of a

LITTLE GIANT
SEPARATOR

will enable you to
turn out more and
better butter than you
are now doing. Mr.
M. M. Gardner, of
Nashville, Tennessee,

writes us: "Though I have on my place
one of Tennessee's celebrated cold springs
my Little Giant Separator nets me \$2.25 a
day over the gravity system."

P. M. SHARPLES,
West Chester Pa.,
Elgin, Ill.,
Dubuque, Ia.,
Omaha, Neb.

FOR SALE: 160 ACRES: best of soil; excellent buildings; 1 1/4 miles from Ovid, Mich. One of the best farms in Shiawassee county. Inquire of

C. A. JOHNSON,
Insurance and Real Estate Agent, Ovid, Mich.

Choice Seed Wheat.

"Rural New Yorker No. 6." A very handsome, beardless white wheat, and a heavy yielder, with a very thick and strong golden straw, easily supporting the heavy grain without breaking or lodging. Price, \$1.50 per bushel. No charge for bags. Address MEADOW BROOK FARM, Rochester, Mich.

EARL D. BABST,
56 Moffat Building, Detroit, Mich.
Attorney-at-Law.

Practice in all courts; collections made anywhere in U. S.; special attention to law of the farm. Also for Lawrence Park Co., also other references.

SOLD!
UNDER A
Positive
Guarantee

SWISS FEED CUTTERS
AND SHREDDERS

Have a successful record of 25 years. Have the largest capacities and are guaranteed to run the easiest. All sizes, with or without shredders or carriers. Send for FREE catalog. Swiss Feed Cutters and Corn Shredders.

J. K. WILDER & SONS, Monroe, Mich.

\$1.48 - ATTENTION! - \$1.48

Agents to sell our celebrated 20th century nickel watch, warranted for 5 years, equal to timekeeper to any Elgin watch; received highest Prize Medal at World's Exposition. Just a watch which will sell for \$100.00. Order agent to call on you one day. We will send to first applicant in each county one sample watch free for examination, and if you think it is the biggest bargain pay express agent \$1.48 and ex. chgs.; otherwise don't take. If money is sent with order watch will be sent postpaid and you save 25c ex. chgs. Order at once. O. T. FRETER CO., Henrietta Bldg., Chicago.

The Household.

CONDUCTED BY MRS. ELLA E. ROCKWOOD, FLINT, MICH.

We should be pleased to have any of our readers who take an interest in household topics, send in their views and opinions upon any subject which is under discussion, or which they wish discussed. The invitation is general, and we hope to see it accepted by many. Address all letters for The Household to Mrs. Ella E. Rockwood, Flint, Mich.

LIFE'S MYSTERY.

We live, and love, and die;
And if we question why
The weal, the woe,
And to what end, a sigh
Bears Nature's sole reply;
We live, and love, and die,
Ere we may know.

—Lippincott's.

TAKE JOY HOME.

Let thy day be to thy night
A letter of good tidings. Let thy praise
Go up as birds go up, that when they
wake
Shake off the dew and soar. So take Joy
home,
And make a place in thy great heart for
her,
And give her time to grow, and cherish
her.
Then will she come, and oft will sing to
thee,
When thou art working in the furrows;
ay,
Or weeding in the sacred hour of dawn.
It is a comely fashion to be glad—
Joy is the grace we say to God.
—Jean Ingelow.

HOME CHATS WITH FARMERS' WIVES.

GOING TO SCHOOL.

I think both mothers and children are glad when school begins. To the mothers it means additional work, but also additional quiet, and that is something which most women appreciate, especially after the summer vacation.

To the children it seems good to get back in school again, to meet playmates, to talk over all that has happened during vacation and—incidentally, to study.

It is a pleasant change for the girls to put on their pretty new frocks each morning, the white aprons, the gay hair ribbons, the many little "fixings" so dear to the heart of a little maid.

And the boys—even if they have no pretty ribbons and laces to wear, there are gay ties, to say nothing of the new hat or cap which a boy usually has to begin school with.

And the books! There are always new school books to be bought; that is what the parents think about it. They start in the first of September with books nice and clean like a new straw hat, but ere many weeks have flown one looks about as dog-eared as the other. But what's the use of being a boy if you have to behave like an old man? One can't be a boy but once, and about all the men I know would give all they possess to be boys again. Let them enjoy themselves while they can.

We live quite near the schoolhouse, and several times each day the children come after water. There are always two, and sometimes three—three if they are little tots, to change off going back, I suppose. I like to watch them. Sometimes it is two girls, with fluttering ribbons and gay calico dresses. They all look so neat, not a slovenly dressed one among them, and as they come up the walk and pass around the well there is usually the inevitable giggle, for who ever saw two girls together when they didn't giggle?

The pail is carefully rinsed out, and of course each takes a good drink of water to begin on.

Then when the pail is filled they start back. How daintily the little misses hold it off at arm's length so as not to spill any water on their shoes.

And I can't help noticing the difference in this respect between them and the boys. Slop-it, slop, goes the water when the boys start back—they seem to think the more they can spill the more fun there is. Perhaps, too, the sooner they can come for another painful. Sometimes they "rinse 'er

out," referring to the pail, sometimes not.

Dear little folks! This world seems all a playground now, but you will find there is lots of hard work coming, so have your fun while you may. And while it may seem as if boys and girls have a pretty hard time of it sometimes, running errands and doing chores, and going to school, yet by and by you will look back at these days and realize that they were the happiest you have ever known.

Then when the afternoon is drawing to a close, when the clock has struck four, and—if some distance from the schoolhouse—the long hand creeps around toward five, mother begins to look up the road for a sight of her little ones. The day has been long without them; how still the house seems! Presently she sees them coming up the path. Dinner pails are hastily discarded and the first thing is an attack on the cookie jar, or the cupboard, where they make short work disposing of sundry odds and ends left from dinner.

Boys are omnivorous, always hungry. They can stow away three square meals a day and as many lunches and feel an aching void at bedtime then.

BURDOCK'S EXPERIENCE IN ATTENDING SCHOOL MEETING.

Well, several had talked with me about going to school meeting and I had almost made up my mind to go. Then I attended our Grange picnic and listened to an address in which a strong plea was made that the people get out to school meeting. That fixed my resolve. I was especially interested in this meeting and always take an interest in school matters and do all that I can to assist every teacher who comes into the district.

I made my resolve known and soon afterward learned that a neighbor declined to go. He said there was no use for him to go as he could not vote on money matters.

School meeting night came and Brother Bramble had not yet returned from an excursion. I thought people would not think it quite proper that I should go alone in the evening and drive my own horse, so arranged that aforesaid neighbor's daughter accompanied me—he was going upon a wheel. When he learned of the plan, he would not allow her to go—said it was no

place for a daughter of his—and rolled off on his wheel fully aware that I wished him to accompany me. Mind you, this was because he thought a woman was going to take a position among men, not that he had anything against me, personally, for I have done a great deal for his family, taking the place of one of those unmarried people our editor wrote about in a recent issue, and his children and wife do a great deal for me. We are on the best of terms.

Well, I put my buggy back into the barn, unharnessed my horse and went to bed with a sore heart.

The next morning his wife offered an excuse. "My husband would have offered to accompany you last night, but he thought you would not have enjoyed yourself there as the men sat on the door steps till half-past nine talking about the breeding of live stock and other things which a woman would not enjoy listening to." Somehow, that did not have the desired effect, but added fuel to the flames. I said they would not have done so had I been there, and I have enough respect for those men (most of them at any rate) to stand firm on that ground, and the man who injured my feelings admits the fact. He was much abashed when I told him that I was shocked to think that when only one evening in a whole year was set aside to talk of educational matters it should be devoted to talk not fit for a woman to hear and school meeting not a fit place for a school girl to go to. I say there must be a reform. Mothers must go to school meeting with their husbands. They need not stay at home because they can not vote. There is much for them to talk about in regard to the education of their children. They must let the school board know their wishes and that is a proper time and place to do it.

Believe me, these meetings would be different did women take an interest in them. Their influence should be felt where the interests of their children are at stake. I am sure if they would go quietly, with true interest, they would be gladly welcomed by the men—a few cranks excepted.

We must not hold ourselves aloof from the men, but go among them in a manner to command respect and we will get it. We must not stand back as if we feared them. It gives them a hint that we think them bad and, may I say, sort of a license to be bad. Our influence is greater than we think. I believe a woman who conducts herself properly will never receive an insult from any sane man, let her go where she will. My experience has been such, at least. But to go back to the school meeting part. I have resolved that if I am in this school district

another year a different school meeting will be held if I have to invite the whole neighborhood to my home and serve cake and ice cream as an inducement for them to come. Mothers to be especially invited.

Battle Creek, Mich. BURDOCK.

(We agree with Burdock that the mothers of the district should take more interest in school meeting. They should attend every one. They can vote for election of officers if they have a child of school age, whether they own property or not.—Ed.)

MAKING THE WASHING EASY.

I am not a farmer's wife, but I enjoy reading The Michigan Farmer, and particularly the Household. I have received many valuable hints from its columns.

I wonder if any of our readers wash as I do? If not, I wish they would try it, for I am sure they will find it an easy one.

I have a six-gallon jar in which I place about one peck of sifted wood ashes, then fill the jar with warm water. Do not have the water boiling, or it will draw the strength of the ashes too quickly. Monday morning before breakfast I sort the soiled clothes and put the finest into the boiler with water and some good soap shaved up fine and about one pint of this lye. Let them boil a few minutes, then remove and add a little more lye, and the next lot of clothes, with a little more soap if needed. In this way, while I am doing my morning's work, the clothes are nearly washed. Rub the dirty water out and any streaks which may remain, then suds and blue as usual, and the clothes will be beautifully white and clean.

As the lye is used from the jar fill up with water and as it becomes weaker use more of it in boiling the clothes. I made mine nearly a year ago, and it is still good. It doesn't require over half the soap where the lye is used.

I was pleased to read what was said by Marme a while ago about winter closets. I would add, provide covers for each place and insist that they be kept in place.

Also teach children that cutting the woodwork or marking in any way is just as bad as if it were done in the sitting room.

I would like to know if any of our readers have ever made mattresses of hens' feathers? If so, were they a success?

Brighton. MRS. J.

If the date on the yellow label on your paper is Oct. '97, your subscription expires with this number. Send us your renewal now and avoid missing any numbers.

MR. H. A. GRIPP, Tyrone, Pa.—Dear Teacher and Friend: At the beginning of my letter I cant to thank you over and over again for the abundance of work I have received during the past eight months. I have been, to quote an expression from one of your other pupils, "snowed under with work from Mr. Gripp." Once I wrote for the work to stop as I was sick and could not finish the work rapidly enough, and received none for a week only and then it came pouring in again. In two days I received over 1000 pieces of work. Mr. Gripp, I never heard of him before, but I have since learned that he is a German artist, and his friends thought that he lived so far away I would not get any work, but I am so glad I am not, for I was very much mistaken. I am learning to work so much faster, too, and in my time I have turned out 1000 pieces of work. But then, compare that with others. I am at home in a comfortable room, sitting at my easel, and in the evenings, during the Summer I take a long walk, horseback ride, or drive, for exercise, come home refreshed and not worn out from my day's work. Now look, on the other side, at the millions of shop girls, seamstresses, school teachers, typewriters, etc., and their daily routine of hard labor. No, I would not change with any, and if every young girl knew of your work there would be fewer in other vocations. But as you well know, there are so many cranks and avaricious workmen, now-a-days, that it is a good idea to let the public know of your work. If you wish, Mr. Gripp, you may publish this letter and perhaps it will influence someone. If any one wishes to ask anything concerning the school and will enclose a self-addressed stamped envelope I will gladly answer all questions. Again thanking you for your liberality, I remain,

Your grateful student,

LELLA MAUD LESLIE.

HOME OF THE SCHOOL

I HAVE WORK FOR YOU AT YOUR HOME.

Read the following very carefully, it will keep yourself and your home.

PAYING EMPLOYMENT AT YOUR HOME.—Explanation.

I have agents in every State of the Union and Canada, also do I furnish newspapers, magazines, and stores with Crayon Portraits which they give to their customers as premiums. I am under contract to furnish two of our leading magazines with Crayon Portraits: one magazine in New York with 50,000 copies, and another in Washington, D. C., with 40,000 14x17 Crayon Portraits. I am considering additional contracts. My experience has been, for the last five years, to teach good, reliable parties at their homes, and send my work to them or let them come to my studio.

HOW CAN I DO IT? In the first place I teach them my own method, and so can depend on their doing good work rapidly, thus saving money for myself. My method is easy—a child can learn it. I would be pleased to tell you how to get up a branch of my work, which consists in the making of Crayon Portraits. These portraits are pictures which my agents, magazines, etc., send me to enlarge, and are copied in Crayon by the aid of my copyrighted print system.

You can send your Print back just as soon as you can finish it. If you have the time, finish it the first day, and if fairly done I will return the print the same day with a box of work, and payment for same. You do not need to practice all day, but only one hour, or less time; and after I have taught you how to do it, I employ a fine-class artist at a high salary. This is the reason I offer my work to agents, etc., and I have agents in every State and Canada, and at the same time you can make fair wages from the start. An ordinary person can earn eight to sixteen dollars weekly, some do better still. You can execute the work by day or lamp light, it can be taken up and laid aside at will.

If you will engage with me, and will work faithfully, I have all the time in the world more than you can do. I do not ask you to give me ten hours a day of your time. But the time you can spare, the more the better. The work calls for no special talent, and if a person can read and is willing to follow my instructions, I guarantee you success from the start.

I have issued a little book which will instruct you how I send my work, and explain how to finish the work, and how much I pay for each print. Also give me all the information you can have learned and are working for me now all over the United States and Canada. If you really wish to make some money in spare time or devote all your spare time to the work, send for book at once and I will send it free of charge.

This is no bogus advertisement but necessary for me to engage good persons to work for me and a godsend for many homes.

MEN AND WOMEN

I send a Crayon Portrait free of charge as a guide to each student.

I send to each of my students a Crayon Portrait of any person. The best is of some one dear to you, or of some one you know well, because you would learn quicker on a face you know. Also do I send you a print of this person, for you to finish, with all material and instruction. The Portraits will be a sure guide for anyone, and is painted the same as my instruction teaches, and as Portrait and Print are of the same Photograph, any person can do the work, if they only try. Send for my book at once, it will be sent to you the same day when I receive your letter or card, so that you do not need to wait too long for the work.

Address plainly, H. A. GRIPP, German Artist, No. 147 Gripp Building, Tyrone, Pa.



To whom it may concern:—The reproduction of H. A. Gripp, German Artist, of this photo, I personally believe to be C. G. Gripp, German Artist.

EARLY MARRIAGES.

How many good things the Household has contained this summer, in spite of the extreme heat and hard work!

In looking over the issues of the past few months many subjects are again brought to light on which I meant to say a word but neglected it.

No truer thought has Pope given us than this: "The proper study of mankind is man."

An interesting study it is, at any rate. No one need be lonely among strangers if he knows how to study the faces around him. I am firmly convinced that we need not depend on experience to teach us everything if we will but observe more. Observation is a much less expensive teacher than experience, and often results are more satisfactory.

Of the girl friends made during school days, nearly all have married and gone to homes of their own, even those who were some years younger than I, and the developments in each household are watched with great interest.

Here is a frail child married at 18. Never strong, each year only sees her growing weaker, with a strained look in the sweet face, and a weary, pathetic droop at the corners of the mouth. There is no lack of good house-keeping in this home, and husband and baby are well cared for, but of the needs of her own body she is utterly ignorant, and at present it seems that one of two things must come to her—a short life or chronic invalidism.

Another young girl recently married knows scarcely anything of house-keeping, and with no desire to learn is not likely to accomplish much in that line. The world was made to play in, and she means to make the most of it. So many girls marrying early in life say to me, "I don't mean to have any children," and my heart aches for their ignorance of life and its responsibilities. One can only hope they may learn their lesson easily, and find before it is too late that happiness is not entirely a matter of parties and picnics.

But do all the sad blunders we see our friends make prove that marriage is a failure? Not a bit of it! It does convince me, however, that some mothers are lamentable failures.

Mr. Bok, in one of his editorials last year, argues that we must not expect a girl under 20 to take anything seriously, that the greatest charm of a girl is her girlishness—this very indifference to the more serious side of life. His idea may be correct, and if so, then certainly no girl should be allowed to marry until she has reached an age when an occasional serious thought will not injure her "charm." Few girls in their teens are capable of estimating a man's character correctly, and fortunate indeed is the girl with a mother who can teach her that marriage is sacred and not "something half way between a sin and a joke."

Our mothers' meetings and other societies are doing much to teach the mothers, and through them the daughters, how to care for their physical and moral health, and when a girl has studied the organs of the human body, with their uses and the methods of caring for them, intelligently, she is well on the way toward comprehending the duties that devolve upon a wife and mother.

V. L. M.

SOMETHING MORE ABOUT ANTS.

I will give Mrs. Jenney my experience with the ants of which she writes. Powders or poisons have no effect upon them, they are invincible to all those things; they simply take their line of march in some other direction, perhaps to the cellar, where they swarm over a pan of milk or the lard jar. The past summer they became so exasperating that I determined to kill or control them, or do the next best thing—move out. By close observation I found their line of march. This can best be found in a dark room, for in the light they simply swarm over everything. So in the evening, taking a lamp, I followed closely until I found where they entered a tiny crack between a shelf and the wall. I placed near that a slice of bread, very sparingly spread with grease. They soon swarmed upon this. I never saw anything to equal their number. As often as they cover this knock them off on the shelf, wiping them quickly up with a wet cloth. In this way I have destroyed myriads of them. I have now kept up this warfare for five weeks, killing them every hour during the

day, yet with all, the numbers do not diminish in the least. I never captured more than today. Shall continue my vigilance, and if possible not leave enough for seed.

This way of trapping them is a great relief, as they only come to this one place, and I have no further trouble with them elsewhere. I read that their eggs are laid in the sand, not making nests like other species of ants. Certainly they are most troublesome pests. Remedies that vanquish larger ants have no effect upon these. Tartar emetics will very soon destroy other kinds.

Will some one please give recipe for lemon jelly?

Addison.

MRS. E. M. BROWN.

SHORT STOPS.

K. A. writes: So far as I have known it, city life, while it has its advantages, is not to be compared to life in the country.

It is an undisputed fact that the majority of prominent men in all callings were born and reared in the country, away from the vices and evil influences which exist in all large cities.

It is true the city has more to entertain one, they have their museums, art galleries, theaters, libraries, etc., but after awhile they get to be old stories to towns people. The city, unless an unusually clean one, is very smoky and dirty, the air is not fresh and sweet as it is in the country, where throughout the summer it is laden with the perfume of flowers. Nature is only half appreciated.

The country is infinite in its productions, and one's life may draw to its close before we have seen half the pictures she is able to display.

It doesn't follow that because people are farmers that they are ignorant, uncouth, or impolite. Good clothes are not good habits. It is not the work we do or the place we live in that makes us noble or ignoble, but the way we work and the way we live.

Another farmer's wife writes: I have been a reader of The Michigan Farmer for over seven years and always have read it with interest. I do not think there is very much difference between the hired girl and the woman who does all her own work, as far as the hours of work are concerned, for there is care and responsibility which a girl never knows. She doesn't have to think and plan how to be saving, and at the end of the week or the month she gets her pay; but a woman's pay never comes, not on a farm, anyway.

I think if girls could look ahead and see what the future has in store for them they would be more content to work out. I do not wish to discourage them from marrying, but I would urge them to think the matter well over before they put themselves where it is forever too late to turn back. It is not a dreadful thing to be an old maid.

I believe nearly all wives have a skeleton in the closet, and there is the place to keep it, but it would be well for girls to understand this, and that "all is not gold that glitters."

GOOD CHEER IN OUR HOMES.

Why is it we think so much more of good times together in the evenings in winter than summer? It is because we are drawn together around the cheerful fireside and the bright light of the lamp to read or study by. We feel more sociable then than we do of summer evenings. We are apt to wander off under the shade of trees or out in the mellow moonlight for reverie, but there is something in the firelight and home cheer of a winter evening that draws us nearer to each other.

A housekeeper makes a great mistake not to pay strict attention to her lamps, especially if she lives in the country and has to depend upon them entirely for light. It's a poor housekeeper that puts off filling her lamps until dark, although I often see it done. It does not take any more time in the morning to fill them and clean them, if one will only be systematic and have a time for it. The best way is to gather them up all over the house and keep a certain place to put them. Then get your pan, mop, scissors, old rags to clean them, and your can of oil. First fill your pan full of hot water and dissolve a tablespoonful of pearline in it, then wash your chimneys; then fill your lamps full of head-light oil (never fill them half full), and then plunge the burners, wicks and all into the water, and let them remain a few seconds; then wipe dry and polish bright

with old newspaper. Trim the wicks carefully, and do this every morning, never neglecting them for a single day, and it is wonderful how bright a light you will have night after night. Lamps get sticky and clogged with dirt unless they get their daily bath. Like children, they need it.

SARAH H. HENTON.

SOME EXPERIENCE IN BUTTER MAKING.

We own a farm of 160 acres and live upon it. I have always done all my work, until the girls grew up, but when they go to school there is not much time to help mother.

We keep but two or three cows, and I will give my experience in making butter. I have round cans, which set in a large tank of water, but our water supply gave out this summer so we could not use that. Then I got some of those large candy pails (they only cost ten cents at the stores), and fill the can only half full of milk and set it into a pail, then fill the pail with water, and in half an hour pour that off and put in fresh. The milk stands 24 hours. I churn three times a week. After the churn is scalded and cooled with plenty of cold water I put in the cream and every few minutes I rinse it down with water. In summer this water is cold, in winter just a little warm. When the butter comes I take it up, wash until the water comes off clear, then salt it, working the salt in good, and set it in a cool place until next morning, then work it over. I think if any one will follow these directions they will have good butter.

Tuscola Co. A NEW CALLER.

TOMATO SOY.

For this you must have the best and ripest tomatoes, and they must be gathered on a dry day. Do not peel them, but cut them in slices. Having strewed some salt over the bottom of a large stone jar, put in the tomatoes in layers—sprinkling between each layer (which should be about two inches in thickness) a half pint of salt. Repeat this till you have put in one peck of tomatoes. Cover the jar and let it stand for three days. Then quite early in the morning put the tomatoes into a porcelain kettle and boil it slowly and steadily till night, frequently mashing and stirring the tomatoes. Then put it out to cool. Next morning strain and press it through a sieve, and when no more liquid will pass through, put it into a clean kettle with two ounces of cloves, one ounce of mace, two ounces of black pepper, and two tablespoonsfuls of cayenne, all powdered.

Again let it boil slowly and steadily all day, and put it to cool in the evening in a large pan. Cover it, and let it set all night. Next day put it into small bottles, securing the corks by dipping them in melted rosin, or bottling wax, and tying leathers over them, or very thick paper will answer as well as leather.

If made exactly according to these directions, and slowly and thoroughly boiled, it will keep for years in a cool

dry place, and may be used for many purposes when fresh tomatoes are not to be had.

TOMATO SOUP.

Use one quart of tomatoes canned, or four very large raw ones, pared and cut up very fine; have the tomatoes very ripe. To these add one quart of boiling water and let them boil twenty minutes. Keep well skimmed and then add one level teaspoonful of soda. After it has done foaming immediately add one pint of sweet milk, and season to taste with salt and pepper. Add a piece of butter a little larger than an egg. When this has boiled ten minutes, add to it two soda crackers rolled very fine, and let it boil five minutes longer. Serve hot. What is left will be good warmed over next day. It is very much like oyster soup in flavor.

CLARA.

HOUSEHOLD HINTS.

Flatirons need to be perfectly clean. Scrub them once a week. If starch sticks rub iron with a bit of hard soap.

Hard water may be softened by placing in the tank or kettle where it is heating a cupful of wood ashes tied in a sack.

Towels and table linen iron much easier if wrung by hand rather than machine. The latter causes wrinkles, which are difficult to remove.

If the date on the yellow label on your paper is Oct. '97, your subscription expires with this number. Send us your renewal now and avoid missing any numbers.

HELP WANTED OF EITHER SEX.

We take pleasure in calling your attention to the advertisement of Mr. Gripp, the well-known German artist. This gentleman having made some new and extensive contracts for supplying crayon portraits in immense quantities to publishers, city art stores and dealers in agents' supplies, is now desirous of engaging the services of at least six hundred people. If you will promise to work faithfully, Mr. Gripp will engage you at a small amount per week. Some people can earn \$8.00, others nearly double that amount per week, and the employment will be steady. There is no peddling connected with the job, it is the work of making crayon portraits, by a patented process in your own home at a certain price per portrait. Any person can learn and you can devote a whole, or part of your time to the work. See the advertisement, then write.

A Good Thing for Women to Remember.

That in addressing Mrs. Pinkham they are communicating with a woman—a woman whose experience in treating woman's ills is greater than that of any living physician—male or female.

The following invitation is freely offered; accept it in the same spirit.

Women suffering from any form of female weakness are invited to freely communicate with Mrs. Pinkham at Lynn, Mass. All letters are received, opened, read and answered by women only thus has been established the eternal confidence between Mrs. Pinkham and the women of America which has never been broken and has induced more than 100,000 sufferers to write her for advice during the last four months. Out of the vast volume of experience which she has to draw from, it is more than possible that she has gained the very knowledge that will help your case. She asks nothing in return except your good will, and her advice has relieved thousands. Surely any woman, rich or poor, is very foolish if she does not take advantage of this generous offer of assistance.—Lydia E. Pinkham Medicine Co., Lynn, Mass.

ONLY \$18
OR WITH
Michigan Farmer One Year Only \$19.



For Our New and Improved High-Arm
Michigan Farmer Sewing Machine.

WITH ALL LATEST ATTACHMENTS.
Warranted 10 Years. All freight paid by us to all points east of the Mississippi River. Self-setting needle; automatic bobbin winder, with oak or walnut woodwork; new bent wood top; seven long skeleton drawers. Full complete set of attachments and illustrations. Instruction booklets with each machine. Every machine we send out guaranteed to be in every way equal to the best made in America and guaranteed to give entire satisfaction or money refunded. \$18 only, or \$19 with paper one year; cash must be sent with order.

If you want the best sewing machine made in the world at the lowest price ever offered, send us your order. Address

MICHIGAN FARMER, Detroit, Mich.

You Can
Pay Off Your
Mortgage

This winter
by working evenings for
THE LADIES' HOME JOURNAL.
We want good agents and
offer good pay.

The Curtis Publishing Company
Philadelphia

Legal Department.

CONDUCTED BY EARL D. BABST,
56 Moffat Building, Detroit.

Fence Must Leave Four Rods for Highway. — Subscriber, Millbrook, Mich.—I am making a woven-wire fence along the road on west side of my farm. Is it legal to set it out two feet from the two-rod line, about as much as the rail fence did occupy? —No.

Drain Law. — W. W. B., Deford, Mich.—We have considered very carefully your map and questions, but owing to the many complications, are unwilling to offer advice. From the showing made the drain is not being properly conducted and you have legal remedies which can be called to your aid, but counsel should come from some lawyer who can give the matter personal attention. Will return the map if desired.

Drains Need Not Be Fenced. — W. S. W., Vassar, Mich.—Please give the law, through The Farmer, relative to fencing ditches constructed by county drain commissioners. I am told there is a law that land owners shall fence all ditches constructed by commissioners at their own expense. If there is such a law I should like to know its provisions, as I am considerably interested.—The legislature repealed all former drain statutes and enacted a new statute, which contains no provision for fence.

Who Qualified to Vote at School Meetings. — J. P., North Star, Mich.—Every citizen of the age of 21 years who has property assessed for school taxes in any school district and who has resided therein for three months next preceding any school meeting held in said school district, or who has resided three months next preceding such meeting on any territory belonging to such district at the time of holding said meeting, shall be a qualified voter in said meeting upon all questions, and all other citizens who are 21 years of age and are the parents or legal guardians of any children included in the school census of the district, and who have for three months, as aforesaid, been residents of said district, or upon any territory belonging thereto at the time of holding any school meeting, shall be entitled to vote on all questions arising in said district which do not directly involve the raising of money by tax. In order to vote on all questions the person must be actually "assessed" for school taxes. In our opinion you cannot go back of the assessment in determining who are the legal voters.

Application to County Drain Commissioner to Have Drain Cleaned Out. — D. B., Sparta, Mich.—A B is a running stream, the upper part of which has been straightened by adjacent owners. Lower part is so filled up with sand that it does not furnish proper drainage. Is there any way by which lower owners can be compelled to open their part?—By the new drain law it is immaterial where a natural water course needs cleaning out, and where no valid proceedings have been had to previously establish such water course, whether the first proceedings are to clean out, lay out, or straighten, and the county drain commissioner upon a written application signed by five freeholders of the township, at least one of whom must own land liable for assessment for benefit, to make an examination, and in his judgment may assess the benefits the same as in the case of a new drain. In case the necessity for such cleaning out arises through the neglect or act of any land owner, such facts are to be taken into consideration in the making the assessment. If you have suffered damage through neglect or acts of lower owner you have a remedy at law for damages direct against the parties. See Laws of 1897, page 380.

"5 Drops." — With an earnest desire to help any of our readers who may be afflicted with Rheumatism, Neuralgia, Asthma, Catarrh or Hay Fever, we feel it our duty to state that after careful inquiry into the statements of the Swanson Rhamatic Cure Co., 167 Dearborn St., Chicago, relative to the wonderful curative properties of their remedy "5 Drops," we have no hesitation in saying that from original letters shown to our representative, we believe that "5 Drops" will accomplish all they claim for it. A visit to their shipping department proved their statement that "5 Drops" is being used in every quarter of the globe. We understand from Mr. Swanson, that during the next 30 days they will send out 100,000 of their 25-cent samples for 10 cents, free by mail.

The Markets.

WHEAT.

The market is very unsettled, owing largely to the operations of large buyers, who sell out as soon as there is a fair profit for them in their holdings, and thus weaken values. At one time this week prices reached the lowest point for several weeks, but they have again advanced, and are nearly at the same range as a week ago. There is no doubt but that wheat is good property at present prices. Conditions are favorable for continued high prices until early spring.

The following table exhibits the daily closing sales of spot wheat in this market from September 1 to September 23, inclusive:

	No. 1 White.	No. 2 Red.	No. 3 Red.
Sept. 1	95%	95%	93%
2	96	96	94%
3	93%	94	92
4	94%	94%	92%
6			
7	97	97%	95%
8	97	97%	95%
9	98%	98%	96%
10	98%	99%	97%
11	96%	97	95
13	93%	94%	92%
14	94%	95%	93%
15	94	95%	93%
16	93	94%	93
17	91%	93%	91%
18	92	93%	91%
20	92%	94%	92%
21	92	93%	91%
22	93	94%	92%
23	92	94	92

The following is a record of the closing prices on the various deals in futures each day during the past week:

	Sept.	Dec.
Friday	93%	93%
Saturday	93%	93%
Monday	94%	93%
Tuesday	93%	93%
Wednesday	94%	95
Thursday	94	94%

The visible supply of wheat on Saturday last in the United States and Canada was 17,140,000 bu, as compared with 15,766,000 bu the previous week, and 49,655,000 bu at the corresponding date last year. The increase for the week was 1,374,000 bu.

Michigan's wheat crop may be put down at 25,000,000 bu, and generally of fine quality. More white wheat was grown than usual, and scattered fields of spring wheat were grown in various parts of the state, but principally in the northern counties.

Robert B. Porter, ex-chief of the census bureau, now in London, writes that the necessities of the wheat importing countries are this year unprecedented. His figures put the wheat necessities as follows: England, 134,000,000 bu; France, 90,000,000 bu; Italy, 32,000,000 bu; Germany, Belgium and Holland, 88,000,000, and even Austria, usually an exporter, 8,000,000, a total of 342,000,000. Including China and other countries, import necessities will be 456,000,000 bu. He figures that if America exports 178,000,000 bu; Russia, 104,000,000 bu; Canada, 24,000,000 bu; Roumania, Bulgaria, and Turkey, 40,000,000, a total of 344,000,000 bu, there will be a theoretical deficiency of 96,000,000 to 104,000,000, with Australia and Argentine to hear from and not available before Christmas.

The Modern Miller says: "The demand for flour was not as good this week as last. Only a few southern markets report a good demand, and prices are lower. Quarantine regulations are restricting trade at several southern points. The east did only a moderate trade. China was a heavy buyer and Latin America took some flour from the west coast. Stocks in second hands are low and are being reduced."

The Bulletin des Halles estimates the world's wheat crop at 2,176,000,000 bu, against 2,390,000,000 bu last year, a shortage of 184,000,000 bu. The French wheat crop is estimated at 232,000,000 bu.

The Mark Lane Express estimates that Russia will be able to export only 64,000,000 bu, compared with 128,000,000 bu exported last year, while the London Times advises from Argentina said cold weather had materially improved crop prospects there, as it hindered the locusts.

Mail advices from Tunis say that good quantities of wheat and barley are still coming on the markets, and several boats are loading the latter article for North France. On the other hand, the local millers are buying Russian grain, which they find comes cheaper than the native article.

A small advice from Adelaide, dated August 3, fully confirms other favorable accounts of crop prospects in South Australia. A good area was sown, and the rains were liberal and well distributed; high hopes are entertained about the likely results.

When the rapid movement of wheat this season is compared with other seasons the wonder is as to where the grain all goes at a premium so much above futures. The fact is that the supplies ran down very much lower at harvest than had been usual and there were many vacant places to be filled up. Old Minneapolis still maintains the large premium above new that was thought to be caused by manipulation. The early holders of the surplus of the old stock sold out, but the price does not go down to the price of new, nor does the price of new go down to the price of futures. It is noticeable now that supplies in various places are showing an increase. But when that small increase and the farm supply are set against the consumptive demand at home and abroad it is quite apparent that there is good reason for the maintenance of good prices throughout the crop year. And further, the outlook indicates another larger increase in stocks next season than existed this. That condition can be averted only by full crops in South America and Australia in January and February and in India later.

MINNEAPOLIS MARKET RECORD.

If the date on the yellow label on your paper is Oct. 1897, your subscription expires with this number. Send us your renewal now and avoid missing any numbers.

DAIRY PRODUCTS.

BUTTER.

The butter market is active and firm, with only a fair supply of good stock offering, and a surplus of the lower grades. Values hold about the same as a week ago, but the market shows increasing strength. Quotations are as follows: Creamery, 17@18c; fancy dairy, 14@15c; fair to good dairy, 12@13c; low grades, 6@7c. At Chicago the market has advanced during the week, and the best grades are firm at the higher rates current. Quotations in that market on Thursday were as follows: Creameries, extras, 19@20c; firsts, 17@18c; seconds, 14@16c. Dairies, extras, 17c; firsts, 14@15c; seconds, 10@12c. Packing stock, fresh, 10c. At New York the market has recovered from its weakness, and we note a general advance in values, with a firm feeling in the trade. Receipts are shortening up, and it is generally believed prices will be maintained at the range now current. Quotations in that market on Thursday were as follows: Creamery, Western extras, per lb, 29c; do firsts, 18@19c; do thirds to seconds, 13@17c; do State, extras, 20c; do thirds to firsts, 13@19c; do June make, extras, 18@19c; do seconds to firsts, 15@18c; State dairy, half-firkin tubs, extras, 17@18c; do Welsh, tubs, fancy, 17@17c; dairy, tubs, thirds to firsts, 11@16c; State dairy, tins, 11@15c; imitation creamery, fine, 14c; do seconds to firsts, 11@13c; factory, June, extras, 12@12c; do seconds to firsts, 11@12c; do fresh, firsts, 12c; do seconds, 10@11c; low grades, 9@10c.

At Utica on Monday 140 packages of creamery sold at a range of 19@21c, the latter being paid for fancy 1-lb prints. Last week the range of prices was 18@21c. At Little Falls on Monday 17 packages of farm dairy sold at 16@17c. Last week the range was 15@16c.

At the Utica Board on Monday 140 packages of creamery sold at a range of 19@21c, the latter being paid for fancy 1-lb prints. Last week the range of prices was 18@21c.

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The market continues to advance, although eastern points do not show any improvement. For the best full creams in this market 10@11c is now quoted, which is nearly 2c higher than the New York quotations. At Chicago, however, the market has also advanced since our last report, and the tone of the trade showed steadiness, with a good demand for the finest stock. Quotations in that market on Thursday were as follows: Young Americas, 8@81/2c; twins, 7@8c; cheddars, 7@8c; Swiss, 8@91/2c; Hamburger, 6@8c; brick, 8@9c. The New York market, while showing no decline in prices, is rather slow and draggy. Receipts are not large, but the demand from the home trade is only fair, while exporters are not taking as much this week as usual. Conditions, however, are regarded as likely to improve soon. Small size cheese are moving to better advantage than large, owing to the home demand for them increasing. A good many skim cheese are being taken by exporters, and this class have held steady. Quotations in that market on Thursday were as follows: State, full cream, large, colored, fancy, 9@91/2c; do large white, fancy, 9@91/2c; do large, choice, 8@81/2c; do large, fair to good, 8@81/2c; do large, common, 7@8c; do colored, small, fancy, 9c; do white, small, fancy, 9@91/2c; do small, choice, 8@91/2c; do small, common to good, 7@8c; State light skims, small, choice, 7@8c; do large, choice, 6@7c; part skims, small, choice, 6@7c; do large, choice, 6@7c; do good to prime, 5@51/2c; do common to fair, 4@41/2c; State, full skims, 3@31/2c.

At the Utica Board on Monday 8,387 boxes were sold at 8@91/2c; the previous week 8,896 boxes were sold at a range of 8@9c, and on the same day a year ago 4,936 boxes were sold at an average price of 8@9c.

At Little Falls on Monday 5,434 boxes were sold at a range of 8@91/2c. The previous week 4,376 boxes were sold at a range of 8@91/2c.

At Liverpool on Thursday the finest white and colored American cheese sold at 45s per cwt, the same price as quoted a week ago.

DETROIT PRODUCE MARKET.

Detroit, September 23, 1897.

FLOUR.—Quotations on jobbers lots in barrels are as follows:

Straights	5.00
Clears	4.75
Patent Michigan	5.50
Low grade	4.00
Rye	3.50

CORN.—The visible supply of this grain on Saturday last in the United States and Canada was 33,737,000 bu, as compared with 33,604,000 the previous week, and 13,621,000 at the corresponding date in 1896. Quotations in this market are as follows: No. 2, 31c; No. 3, 30c; No. 2 yellow, 33c; No. 3 yellow, 321/2c; No. 2 white, 32c.

OATS.—The visible supply of this grain in the United States and Canada on Saturday last was 10,753,000 bu, as compared with 9,701,000 bu the previous week, and 8,460,000 at the corresponding date in 1896. Quotations are as follows: No. 2 white, 231/4c; No. 3 white, 23c; light mixed, 23c; No. 3 mixed, 22c.

RYE.—The visible supply of this grain on Saturday last in the United States and Canada was 2,425,000 bu, as compared with 2,349,000 bu the previous week, and 1,964,000 bu at the corresponding date in 1896.

BARLEY.—Quoted at 70@75c per cwt for fair to good samples; low grade, 20c per bushel.

FEED.—Jobbing quotations on carload lots are as follows: Bran and coarse middlings, 10@11c; fine middlings, \$12; cracked corn, \$13; coarse cornmeal, \$12; corn and oat chaff, \$11 per ton.

CLOVER SEED.—Prime quoted at \$3.55. No. 2 quoted at \$3.25@3.35. In futures October is selling at \$3.55; December, \$3.60; March, \$3.80.

BUTTER.—Creamery, 17@18c; fancy dairy, 14@15c; good dairy, 11@13c; low grades, 6@7c per lb.

CHEESE.—Michigan full cream, 10@11c per lb for test.

POULTRY.—Live fowls, 7c; spring chickens, 81/2c; ducks, 7@8c; turkeys, 8c per lb.

EGGS.—Fresh, receipts, 14@141/2c per doz.

GAME.—Jack snipe, \$1.50 per doz; golden plovers, \$1.50 per doz; ducks, per pair, canasbacks, \$1@1.50; mallards, 50@60c; red-

heads, 50@60c; bluebills, 25c; widgeon and pintails, 25c; wild geese, 50c each.

CABBAGES.—\$3@4 per 100 head.

PLUMS.—Fair fruit, 35@40c per peck-basket.

PEARS.—Common, 75@85c per bu; Bartlett, \$1@1.25.

PEACHES.—New York Crawfords, 60@80c per 1-3 bu basket; Canadian, 50@80c per 1-2 bu basket.

GRAPES.—Nlazara, 15@20c; Island Concord, 14@15c; State Concords, 9@10c per basket.

MELONS.—Watermelons, \$15@20 per 100; nummers, 50c per doz; osage, 75c per doz.

TOMATOES.—Quoted at 50@60c per bu.

POTATOES.—Michigan quoted at 50@60c per bu. A good deal of the receipts are of very poor quality.

RAISINS.—City hand-picked, quoted at \$1@1.05 per bu in car-load lots.

ONIONS.—Quoted at 40@50c per bu.

DRIED FRUITS.—Evaporated apples, 4@5c; evaporated peaches, 75c; dried apples, 3c per lb.

HONEY.—Quoted at 10@12c in sections for white and 8@9c for dark comb; extracted, 5@6c per lb.

PROVISIONS.—Quoted as follows: Mess pork, \$10 per bbl; short cut mess, \$11.75; short clear, \$10.50@10.75; compound lard, 4@4c; family lard, 5@6c; kettle lard, 6@6c; smoked hams, 9@10c; bacon, 81/2@83c; shoulders, 6@6c; picnic hams, 74c; extra mess beef, \$7.50; plate beef, 8.25.

COFFEE.—City prices are as follows: Rio, roasting, 15c; fair, 16c; good, 18@19c; prime, 20c; choice, 22@23c; fancy, 24c; Maracaibo roasted, 25c; Santos, roasted, 24c; Mocha, roasted, 29c; Java, 29c.

OILS.—Raw linseed, 39c; boiled linseed, 40c per gal less 1c for cast in ten days; extra lard oil, 48c; No. 1 lard oil, 35c; winter white kerosene, 84c; fancy grade, 111/2c; deodorized stove gasoline, 73c; turpentine, 36@361/2c per gal in bbl lots; in less quantities, 40@42c per gal.

Patrick & P sold Caplis & Co 3 steers av \$10 at \$3.80 and 4 mixed stockers to Sullivan av \$35 at \$3.25.

Bandfield sold Mich Beef Co 7 steers and heifers av \$74 at \$3.85 and a bull weighing 1,090 at \$2.75.

Roe & Holmes sold Sullivan 17 feeders av 558 at \$3.75 and 13 stockers av 593 at \$3.10; to Mich Beef Co 9 steers and heifers av 950 at \$4.00, 11 stockers av 532 at \$3.40 and 2 common butchers av 720 at \$2.60.

SHEEP AND LAMBS.

Receipts Thursday, 1,807; one week ago, 1,130. Quality fair. Market active; all sold early at strong last week's prices. Range of prices: Good to choice lambs, \$5.10 to \$5.25; fair to good, \$4.65 to \$4.95; yearlings and good mixed lots, \$4.40 to \$4.65; fair to good mixed butchers, \$3.25 to \$4.35.

Thorburn sold Monaghan 51 mixed av 76 at \$4 and 9 lambs to Mason av 69 at \$5.

Horne sold Fitzpatrick 30 lambs av 69 at \$5.

Glenn sold Sullivan Beef Co 45 mixed butchers av 63 at \$3.50.

Stephens sold same 22 mixed butchers av 67 at \$3.90.

Steat & Co sold same 60 mixed butchers av 85 at \$3.50.

Clark sold Hiser 36 mixed butchers av 80 at \$3.90.

Rook sold Young 17 mixed butchers av 81 at \$4.

Major sold Fitzpatrick 114 lambs av 76 at \$5.

Hogan sold Monaghan 38 lambs av 60 at \$5.

Spicer & M sold Young 31 lambs av 88 at \$5.25.

Glenn sold Mich Beef Co 99 lambs av 62 at \$5.

Burden sold Hiser 12 mixed butchers av 67 at \$3.25.

Hogan sold Sullivan Beef Co 18 mixed butchers av 72 at \$3.25 and 14 mixed to Monaghan av 79 at \$3.85.

Skarrett sold Mich Beef Co 60 lambs av 68 at \$5.00.

Johnston sold Hammond, S & Co 42 mixed av 88 at \$4.75.

Cushman sold Young 11 lambs av 73 at \$5.25 and 7 mixed av 89 at \$4.00.

Johnston sold Downs 222 lambs av 67 at \$5.05 and 63 do to Fitzpatrick av 72 at \$5.00.

Haley sold Hiser 49 most lambs av 68 at \$4.80 and 66 lambs to Hammond, S & Co av 71 at \$5.00.

Roe & Holmes sold Robinson 12 lambs av 71 at \$5.25, 13 do av 61 at \$5.00 and 16 mixed butchers av 86 at \$3.50.

Horne sold Burnstine 51 most lambs av 70 at \$4.90.

White sold Mich Beef Co 91 lambs av 64 at \$5.

York sold same 199 lambs av 66 at \$5.00 and 31 mixed av 96 at \$3.50.

Spicer & Merritt sold same 12 mixed butchers av 78 at \$3.25.

HOGS.

Receipts Thursday, 2,329, as compared with 1,981 one week ago. Of fair average mixed quality. Market active and strong; 2% to 5c higher than prices paid last Friday. All sold early, closing steady. Range of prices, \$4.15 to \$4.27, mostly \$4.20 to \$4.25; stags, 3/4 off; rough, \$3.30 to \$3.60; pigs, \$4.20 to \$4.40.

Patrick & Pline sold Parker, Webb 62 av 213 at \$4.25.

McCloughry sold same 56 av 196 at \$4.25.

Roe & Holmes sold same 116 av 150 at \$4.27, 39 av 151 and 55 av 216 at \$4.25, also 28 av 122 at \$4.20.

Bandfield sold same 53 av 208 and 117 av 195 at \$4.20.

Taggart sold same 61 av 217 at \$4.25.

Clark sold same 22 av 248 at \$4.25.

Murphy sold same 25 av 194 at \$4.25.

Sharp sold same 70 av 189 at \$4.25.

Spicer & M sold same 80 av 193, 27 av 215, 11 av 198 and 34 av 204 all at \$4.25.

Ansty sold same 36 av 180 at \$4.25.

Johnston sold same 17 av 209 at \$4.22 1/2.

Estate sold same 69 av 208 at \$4.25.

B F Judson sold Hammond, S & Co 147 av 208 at \$4.27 1/2.

Glenn sold same 37 av 200 at \$4.22 1/2.

Bergen & T sold same 64 av 195 at \$4.25.

Brooks & Picket sold same 60 av 202 at \$4.25.

Stoll sold same 32 av 215 at \$4.25.

Clark & B sold same 76 av 202 at \$4.25.

Stephens sold same 48 av 196 at \$4.25.

Horne sold Sullivan 40 av 181 at \$4.25.

Hogan sold same 25 av 197 at \$4.25.

Cushman sold same 62 av 182 at \$4.25.

Proper sold same 57 av 174 at \$4.25.

Thorburn sold same 53 av 160 at \$4.25.

Osmus sold R S Webb 27 av 221 at \$4.25.

Magee sold same 19 av 133 at \$4.20.

Shook sold same 42 av 192 at \$4.25.

Hawley sold same 95 av 188 at \$4.25.

Burden sold same 50 av 192 at \$4.25.

OUR BUFFALO LETTER.

East Buffalo, Sept. 23, 1897.

Cattle.—Receipts of cattle on Monday last were 6,116, as compared with 5,292 the same day the previous week, and shipments were 4,906, as compared with 4,202 for the same day the previous week. The week opened with a dull and barely steady market for good handy grades, with common and half fat stock lower; heavy steers were also dull and slow, and sold a shade lower; bulls were steady to firm for good, and light common dull and weak; stockers and feeders were in fair supply, and ruled lower for all but choice well bred stock. Mich cows were dull except for the choicest, and veal calves were 25@50c per hundred lower. Since Monday receipts have been light, but the market has not shown any improvement. Quotations at the close on Wednesday were as follows: Export and Shipping Steers.—Prime to extra choice finished steers, 1,250 to 1,400 lbs, \$5.15@5.35; prime to choice steers, 1,200 to 1,400 lbs, \$4.90@5.10; good to choice fat steers, 1,200 to 1,400 lbs, \$4.75@4.90; good to choice fat smooth steers, 1,100 to 1,200 lbs, \$4.60@4.75; green coarse and rough fat steers, 1,000 to 1,350 lbs, \$3.75@4.40. Butchers Native Cattle.—Fat smooth dry fed steers, 1,050 to 1,150 lbs, \$4.60@4.75; fat smooth dry fed light steers, 900 to 1,000 lbs, \$4.25@4.50; green steers thin to half fattened, 1,000 to 1,400 lbs, \$3.75@4.35; fair to good steers, 900 to 1,000 lbs, \$3.90@4.30; Texas steers, \$3.75@4.20; choice smooth fat heifers, \$4.15@4.50; fair to good fat heifers, \$3.40@3.90; light thin half fat heifers, \$3.10@3.35; good smooth well fed butchered cattle, \$3.75@4.20; fair to good butcher cattle, \$3.75@4.20; fair to good butchers cattle, \$3.75@4.20; common old shelly

cows, \$2@2.90. Native Stockers, Feeders, Bulls and Oxen.—Feeding steers, good style, weight and quality, \$3.65@4.10; feeding steers, common to only fair, \$3.25@3.50; good quality yearling stock steers, \$3.80@4.15; stock heifers, common to choice, \$2.90@3.40; export weanling bulls, fat and smooth, \$3.65@4; good fat smooth butchers bulls, \$3.25@3.50; fair to good sausage bulls, \$2.65@3.10; thin, old and common bulls, \$2.50@2.80; stock bulls, \$2.50@3; fat smooth young oxen, to good lots fit for export, \$4.40@4.60; fair to fairly good partly fat-tended young oxen, \$3.75@4.25; old common and poor oxen, \$2.25@3.50. Milkers and Springers.—Milkers, strictly fancy, \$4@50; milkers, good to choice, \$3@4.25; milkers, fair to good, \$2.8@3.25; milkers, poor to fair, \$1.8@2.25; springers, strictly fancy, \$4.25@4.60; springers, fair to good quality, \$3@4.20. Veal Calves.—Veals, choice to extra, \$7.50@7.75; veals, good to choice, \$6.75@7.25; veal calves, common to fair, \$5.50@6.50; heavy fed and buttermilk calves as to quality, \$3.50@5.50.

On Thursday cattle were in light supply, and ruled steady to easy at Wednesday's prices.

Sheep and Lambs.—Receipts, Monday, were 18,200, as compared with 12,500, the previous Monday; shipments were 9,000, as compared with 8,000 same day the previous week. On Monday the market opened with a liberal supply, but trade was slow, and lambs declined 15@25c per hundred from prices ruling at the close of the week. Sheep held steady to firm, and were all closed out. Since Monday receipts have been moderate, and lambs have met with a fair demand at improved prices, while sheep of good quality have also been stronger. Quotations at the close on Wednesday were as follows: Native Lambs.—Choice to fancy spring, 75 to 80 lbs, \$5.65@6.75; fair to good spring lambs, \$5.35@5.60; culs and common spring lambs, \$4.50@5.25; fair to choice native yearling lambs, \$4.25@4.75; common to good cul yearlings, \$3.00@4; common skinny spring culs, \$3.25@4. Native Sheep.—Prime to fancy wethers, \$4.35@4.70; good to choice handy sheep, \$4.25@4.45; common to fair, \$3.75@4.15; culs and common, \$2.50@3.50; good to extra heavy export clipped mixed sheep to prime weight, \$1.80@2.50; fair to good dairy fed grades ends and grassy hogs, \$4.35@4.45; rough common to good, \$3.75@4.00; stags common to good, \$3.00@3.30; pigs light 105 to 120 lbs, good to prime corn fed lots, \$4.55@4.60; pigs thin to fair light weight, 75 to 100 lbs, \$3.25@3.35; pigs, skips and common light undesirable lots, \$3.00@3.50.

Thursday the market for hogs was slow and a little lower. Yerkers sold at \$4.50@4.60; mediums, \$4.45@4.50; heavy, \$4.40@4.50.

Hogs.—Receipts of hogs on Monday last were 17,480 as compared with 20,900 for the same day the previous week; and shipments were 11,020 as compared with 13,490 for the same day the previous week. On Monday the market opened with moderate offerings, and ruled fairly active. Without any more talk he said he wanted the job of furnishing my household with fresh meats and his wife wanted the position of cook. As they had shown their abilities I gave them the positions at once. He never failed to keep a good supply of meats on hand, and his wife furnished good home cooking. If all the office seekers were like that man, a government official's life would be a happy one."—Omaha Bee.

Great is the Yankee.—In Mexico feed of all sorts is very cheap. To bring it into the United States involves payment of a heavy duty.

Poultry is very high in Arizona, and these two facts set a lively Yankee at work. He built a range part in Arizona and part in Mexico. There is a grain store house in the Mexican end of the range, and when the hour for feeding comes the man assembles his flocks near the storehouse and supplies their wants bountifully. They come home to roost under the American flag, and there spend most of their time until feeding hour comes again.

In this way their owner effects a saving of at least 50 per cent on his food supplies and at the same time kills and markets his birds under the Stars and Stripes, and doesn't do a bit of smuggling, either.

This ingenious evasion of law creates no little amusement among his friends, and he is serenely conscious of having committed no crime against the laws of his country. If there is any fault whatever, "the plaguey hens" are guilty of it, and the question arises whether or no they can be called to account for their conduct.

An Impression—"Ol must confess," said Mr. Rafferty, "that it ain't clear to me what's meant by arbitration."

"It's a great t'ing," replied Mr. Dalton. "Ol'll explain it till yez. 'Spose two people hev a quar'l."

"Which is li'ble to happen any day?"

"They call in three or four other people to take a hand and express an opinion, an' the result is absolute peace or a general free fight, ayther of which is ty to be desired."—Washington Star.

A pretty little anecdote is told of the great painter Corot. Corot lived with his mother, being a most devoted son. In her declining years the old lady became paralytic and unable to get beyond the garden, at the end of which was a spacious summer-house. In 1849, on her birthday, the artist wheeled her chair to this spot, and she found painted panorama-fashion on the walls the six views which she had most pleasure in gazing upon when her health allowed her to go out.

WORKS PERFECTLY.

NOTTAWA, MICH., Sept. 4, 1897.

GENTLEMEN:—I received the sewing machine in due time and am very well pleased with it. We have tried it on different kinds of work and it does its work perfectly. H. E. HOUGHTALING.

If the date on the yellow label on your paper is Oct. '97, your subscription expires with this number. Send us your renewal now and avoid missing any numbers.

Richard Hughes, James Cahill and Charles McConnell, all of Philadelphia, pleaded guilty last November to an indictment charging them with making false election returns at the November election. They were sentenced to six months each in prison and to be deprived of the right of suffrage for four years. They served the required time in prison and now wish the sentence of disfranchisement set aside. The State Board of Pardons favored this, but Governor Hastings sat down on the suggestion in a most vigorous manner. There is no mistaking his position in the utterance of his views when the question came up before him. He said:

"He who, either as election officer or briber, contributes to the spoliation of the American ballot should be accursed of men; and the stain which discolors him should be reflected upon every person, high or low, who profits by his crime. I refuse to concur in the recommendation of the Board of Pardons, and I decline to exercise executive clemency."

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Strange New Shrub that Cures Kidney and Bladder Diseases, Rheumatism, etc., Free

We have previously described the new botanic discovery, Alkavis, which proves a specific cure for diseases caused by Uric acid in the blood, disorder of the Kidneys or urinary organs. It is now stated that Alkavis is a product of the well-known Kava-Kava Shrub, and is a specific cure for these diseases just as quinine is for malaria. Hon. R. C. Wood, of Lowell, Ind., writes that in four weeks Alkavis cured him of Kidney and bladder diseases of ten years' standing, and Rev. Thomas M. Owen, of West Pawlet, Vt., gives similar testimony. Many ladies also testify to its wonderful curative powers in disorders peculiar to womanhood. The only importers of Alkavis so far are the Church Kidney Cure Co., No. 418 Fourth Avenue, New York, and they are so anxious to prove its value that for the sake of introduction they will send a free treatment of Alkavis prepaid by mail to every reader of *THE MICHIGAN FARMER* who is a sufferer from any form of Kidney or Bladder disorder, Bright's Disease, Rheumatism, Dropsey, Gravel, Pain in Back, Female Complaints, or other afflictions due to improper action of the Kidneys or Urinary Organs. We advise all sufferers to send their names and address to the company and receive the Alkavis free. It is sent to you entirely free, to prove its wonderful curative power.

WANTED—Young man to learn engraving by mail that pays \$50 per week salary. Position guaranteed. Tuition paid after position is secured. NUDD'S ENGRAVING SCHOOL, Boston, Mass., U.S.A.

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Horticultural.

For the Michigan Farmer.
FALL PLANTING OF RASPBERRIES.

While in a general way, for our northern climate, I am very little in favor of planting most kinds of nursery stock in autumn, I have had excellent results from the planting of raspberries at this season. Hence I have no hesitation to recommend to those who have not already prepared for a supply of these for the home garden that they shall arrange to plant of both the red and black sorts the coming fall. And plant generously of each kind, not purchasing the plants by the single dozen of some irresponsible nursery agent, representing that he has some new sort superior to any other that has yet been introduced, and for which he will charge you for a dozen plants almost, and often quite as much as you could purchase 100 of some reliable grower.

Send and get the price lists of some reliable nurserymen and learn from them the actual value of the plants desired, then select from the old and tried standard varieties such as are known to succeed, send in your order for from 50 to 500 plants, according to the space you desire to devote to them, and when received plant carefully, and my word for it, if given proper care in after culture, unless some untoward conditions should cause a failure, you will be satisfied when the fruiting season has arrived that your investment has been a most profitable one.

I would recommend not too early planting, the object being not so much to secure any growth this fall as to have the plants in the ground and ready for growth when spring opens. From the middle to the end of October is, I think, all things considered, the best time for this work if to be done at all in autumn. For at this time the new plants are much better matured than at an earlier date and the growth they have made before removal will be worth much more to them than any they could be expected to make thereafter.

Some good authorities have claimed that the later they can be placed in the earth before it freezes up in the fall the better, and my experience on at least one occasion would seem to very strongly corroborate that theory. Engaging to plant for a friend about 500 raspberries from my own grounds, in the autumn, I was belated by some means beyond what I expected, and as it turned out, just reached his place in time to get them set the day before winter closed in and the ground froze up. We took especial care in planting, it being so late, though we hardly expected winter to come on so soon, and around each plant as set we drew up a little mound of earth, which we instructed them to remove in spring to the level of the surface, and although the winter following proved to be a severe one, never have I seen a newly-set plantation of raspberries, either of fall or spring planting, do better. This matter of raising a little mound of earth around the crown of any plant or tree set in autumn I consider of much importance, often serving the twofold purpose of protecting it from water which might settle in and freeze about the plant, and also as a protection against damage by mice.

Delaware Co., N. Y.

B. E. J.

For the Michigan Farmer.
TRIBULATIONS OF A PLANT GROWER.

Mr. M. N. Edgerton complains in The Farmer that he received his plants from me early in April and that he was put to a couple of hours' work in heeling them in; that three weeks of cold weather and heavy rains followed so he could not set them out, but concedes he now has a good stand and the plants are doing nicely. The trouble with most fruit growers—especially beginners—they often get a good thing but do not see it. Mr. E. received his plants while entirely dormant. So long as they are kept damp and cool while in this condition no harm could come to them, but if they had been left here in the ground they would have started to grow during those three weeks and the hot, dry weather following would have given him a "speckled patch" instead of the "good stand" he now has.

The best growers now take up all their plants as soon as frost is out of stipulate that they must be sent as

the ground and heel them in so as to keep them from starting until they can fit their ground, and if a little pains be taken in doing the work, excellent results will follow. The growth begins naturally and the good effects will be seen throughout the season.

We order new varieties for trial every year, and are frequently obliged to get them from the South and always soon as the frost is out of the ground. We received some from the state of Washington in February last year. They were kept in an iced cellar until planting time, and all grew nicely. Plants from the South, of course, always commence to grow long before the ground can be prepared at the North. This is why the sharp growers of the South order plants from the North. They get them while they are dormant.

No nurseryman doing business enough to justify issuing a catalogue can undertake to know what the weather will be or when the grounds of a customer will be ready, and guarantee the plants will be there on that morning. He cannot hold back orders because it is impossible to know exactly how many plants there are in a row. We estimate as carefully as possible and keep an aggregate of orders received, but often find the estimate at variance with the number of plants found in the row. He cannot possibly know what varieties will be called for, and propagate so every variety will be on the ground when the last order is filled, hence, he must, if he is fair to his customers, fill every order in the rotation in which it is received. The person who gets left on varieties should be the one who delays ordering until all is sold.

While we make frantic efforts to meet the requirements of customers, we cannot undertake to do the work which belongs to them or know when their oats will be sown so they can look after their plants.

R. M. KELLOGG.

For the Michigan Farmer.
THE GARDEN.

It has not been long since the soja bean was sent out as a novelty by seed companies. It was claimed to be a good substitute for coffee, but superior to it in flavor, cheaper, and otherwise more desirable. Last spring one of the most reliable firms rather modestly asserted that it was said to make a good fodder plant, which was considerable of a fall for a plant of such great pretensions only a year or two before. Thus far our experience has not been favorable. The seeds did not germinate well last spring and the growth this summer has not been good. The beans which are promised are a poor return for the labor. The plant grows erect and is easily cared for, so far as that is a recommendation. It might be of value for fodder if there were only enough of it. A row of the beans is rather pretty to look at, but a garden plant needs something more than this if it is to make good its claim to public favor. Others may find more desirable qualities in it, but we are quite content to leave it alone after one year of experience.

* * *

Gourds are not often found in the garden. Perhaps a majority of people would vote them a nuisance, in most cases. They are rank growers, some of them being rivals of the pumpkin. If planted near the cucumbers they may do no great injury the first year, unless they crowd out their weaker neighbors, but if the seeds of the latter are saved there is disappointment in store for the next season. The fruit may be cucumber to the eye, but gourd to the palate, which is a combination not at all to be desired. But gourds have their uses, in spite of their readiness in mixing with other vines. If the seeds are not saved there will be no injury in allowing the gourd to grow near other plants, as the mixing does not affect the present crop, but is limited to the seed.

Some of the varieties are quite ornamental, and their trailing habits make them of value for screens and as coverings for unsightly places. In ordering seeds it will do no harm to put in the list a few gourds. They can be put to good use with very little trouble and will add something pleasing to out-of-the-way and neglected places in many yards.

In pioneer days when the settlers were dependent upon their own resources the gourd was looked upon as a good friend. At the present time we are apt to have a small opinion of the utensils made from the hard rind of

this vegetable, which served our grandmothers so well, and yet we might find many uses for them. A supply of the dipper and sugar-trough varieties is very good to have on hand, and it does not take many vines to produce all that are needed, as they are very productive. Feed and water troughs for poultry and small animals may be made from gourds that serve the purpose very well, and the cost is small. As for the dippers they can be put to a hundred uses around the barns and pens. We can get along without them, of course, yet we consider their convenience worth the trouble of raising them.

The nest-egg gourd is useful in the way its name implies. The gourds need the whole of the season for growing and ripening, and unless they are ripe they will not keep. We have tried hill culture with indifferent success. The best place we have found is the south side of a building, where they can be planted early, and when trained to a trellis they grow well and form quite an ornament. In such a sheltered position they can have the full benefit of a long season. There is one trouble, however, with the nest-egg gourd. It is apt to grow too large to be of much use.

The much advertised lufta or dish-cloth gourd we have not succeeded in raising and have little faith in it for this climate. The leaves are dark green in color, suggestive of a very ornamental vine, but the plant is delicate. It should be started in a hotbed and handled with care. The present indications are that Michigan is not the proper place for it. The valuable part of this gourd is the membrane about the seeds, which resembles a coarse kind of cloth. In localities farther south it is said to be a profitable crop.

* * *

An inquiry in The Farmer of September 11, regarding sweet potatoes, brings to mind the experience of a neighbor. Last year he selected some of the common yellow sweet potatoes, such as are found in our groceries. These were cut in slices and planted in hills after the ordinary manner. The yield from these was more than double that from plants obtained at a hot-house and given the usual cultivation, and the roots were much larger and better in quality. It looks as though with a little care in selection we could soon have a sweet potato that would fully mature during the seasons of Michigan. Unfortunately, in this case, the roots did not keep till spring, so we have no means of judging the results of a crop raised from roots grown in the State.

F. D. W.

VINEGAR FROM SUMMER APPLES.

If there were only a larger proportion of sweet in summer apples, they would be much the best for making into vinegar, as the warm weather this time of year causes violent fermentation, which soon gets into the vinegar stage. But it is found that though the fermentation is rapid because of the temperature, the vinegar resulting therefrom is thin and poor. There is a decided advantage in adding some sugar after the cider has passed the alcoholic stage of fermentation. It will increase the sourness of the vinegar, while there will still be the same apple aroma and flavor which makes apple cider vinegar the best that can be produced from anything. The fall apples, even those called "sour," have more sweetness in them than have the best sweet summer apples. The Russian apple makes a very rich cider, but it does not ripen until all the warm weather has passed, so it keeps in the alcoholic stage all winter, and is very apt during that time to be drunk by cider-thirsty people. The advantage of making cider from summer apples is that hot weather brings it so soon to the vinegar stage that comparatively little of it will be drunk as cider.—American Cultivator.

HORTICULTURAL NOTES.

The State of Maine has led off in an attempt to secure purchasers of seeds and plants from loss by adulteration, foul stuff, dirt, etc. Its legislature has passed a law which provides that "every lot of seeds of agricultural plants which is sold for seed by any person in Maine shall be accompanied by a written or printed guarantee of its percentage of purity and freedom from foreign matter." Would it not be a good thing if the next Legislature of Michigan should enact a law of the same tenor.

The Year Book of the Department of Agriculture makes the statement that the total value of canned fruits and vegetables in the United States in 1890 was nearly \$30,000,000, and adds: "The capital employed in this industry was only \$701,388 less than was employed in the creamery business, while the value of the products exceeded the combined value of all the windmills, clock, watches, firearms, mirrors, mats and matting, linen fabrics, and enameled goods manufactured in the United States that year."

J. H. Hale says: "From the nurseryman's point of view, it is preferable to bud peaches close to the ground, because the young stocks are larger there and more easily worked. It is also cooler and more moist near the ground and the buds take better. From the orchardist's point of view, I can see no possible advantage in high budding, for occasionally the entire top of the tree gets broken off, and new sprouts come out and form a new top. Even on trees five or more years old, if budded high, these sprouts would come from the seedling stock and be valuable. I know of no good argument to be advanced in favor of high budding of peaches."

Regarding the influence of the stock upon the graft or bud trees, Judge Miller says: "I often see comments on this subject, and am surprised at some of the results claimed. In all my grafting and budding for half a century I have never seen any change in the fruit from its original character so far as flavor and color are concerned. If a sour apple graft was set on a sweet apple limb the fruit would be sour, and the same with all kinds. Of course if a feeble grower is set on a strong stock the fruit may be larger. The sap seems to be clear fluid and has no influence on the fruit in the way of changing its character."

The Kansas Experiment Station recently issued a bulletin on apple grafting, the conclusion arrived at being summarized as follows: First, that whole root grafted apple trees are of no greater value to the buyer than trees grafted on piece roots of five, four or two and one-half inches in length. Second, that grafting above the crown of the seedling stock secures in a tree no valuable quality which is not secured by grafting below the crown. Third, that the use of whole roots or long pieces may offer some slight advantages to the nurseryman, but that these will not compensate for the extra labor and expense. Fourth, that the greatest uniformity in growth is secured by use of grafts that secure an early rooting of the scion above the union.

A Tennessee correspondent refers to Mr. Saunders' note in regard to the destruction of scale by lime-wash, and remarks that he practiced it successfully a half century ago, adding, however, a little soot with the lime-wash in order to take away its glaring color. It has also been in use by the old German settlers in Pennsylvania for a couple of centuries, who applied it not merely for the destruction of scale, but for all other insects and injurious fungi. No trees can be healthier than those old-fashioned people can present. No one need fear the San Jose scale, or any other scale, who applies annually a coat of whitewash as described. So many of these admirable horticultural practices of our forefathers have been suffered to fall into disuse to be replaced by other more complicated and less satisfactory applications that correspond. Like Mr. Saunders, those who bring these old, worthy practices again to the foreground deserve more thanks than those who are continually talking of the new notions.—Meehan's Monthly.

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The Poultry Pard.

For the Michigan Farmer.
AN APPROPRIATION FOR POULTRY INTERESTS.

Through the columns of one of the leading poultry papers of the day information is given that the recent state Legislature of Illinois has passed a measure providing for a state appropriation of \$1,000 per annum for two years to be devoted to the advancement of the poultry interests of that state. The money is to be placed in the hands of a State Poultry Association and subject to their control. As is common in other states which are fortunate to be so favored, the appropriation fund will be offered in suitable cash prizes at the winter exhibition for the best exhibits of thoroughbred poultry the best specimens of dressed fowls and to the best exhibits of eggs. Each breed and variety and the product or products of the same to compete by itself, except in cases where sweepstakes are offered.

The writer is exceedingly pleased to see this bill transformed into a law. And every man and woman who have at heart the advancement of the thoroughbred, practical-utility fowl will experience the same feeling. The poultry interests of Illinois are now in a fair way to be materially broadened out of the strictly fancy, and expanded into the practical farmer's fowl.

Whether or not this newly acquired state appropriation is to remain a permanent factor in the poultry interests of Illinois depends on the poultrymen of that state. With and only with them lies its success or its failure, its permanence or its repeal. If they follow in the footsteps of other states which enjoy a like appropriation, their success is assured and the state fund a factor in poultry culture that is there to stay.

The writer is pleased to note the success of poultrymen in our neighboring state, and our only regret is that the old Wolverine State is not ready to wheel into line with her, yet we trust that the time is not far distant when Michigan will come to the front with a thousand dollars per annum to be devoted to the advancement of thoroughbred poultry interests. When such a state of affairs come to pass, as we believe they must in a few years, the practical-utility fowl of Michigan will take a boom that will place all former efforts in the shadow, and the Michigan State Legislature will become convinced that the thousand dollars so expended was one of the best appropriations that they have ever made.

Aid from the states is necessary for the improvement of the utility feature of our present State Association.

While the Michigan State Poultry Association is doing much for the improvement of poultry, its efforts are dwarfed as compared with the results that might and would be accomplished with a comparatively little pecuniary support from the State. The present State Association, which has been in active operation for the past six years, is run on the percentage plan. It practically amounts to a purely ribbon show; the cash that the successful exhibitors obtain comprises but a small fraction of the expense that they have been to to win. The natural result is that it is made up principally of men who are strictly fanciers and, hence, that a fanciers' exhibition follows is obvious. The same is true of every other association which is run on the same principles. And what is worse yet, it seems to have been amply demonstrated that a Michigan show can not be run any other way, i. e., one can not be so conducted as to offer and pay cash premiums. Two years ago this experiment was tried in this State. Two different score-card exhibitors started out with a full line of cash prizes, and so far as the writer has been able to learn, neither association ever paid a single cent of the prize money that they pledged themselves to pay. The writer doesn't wish to assail any member or officer of either society. We believe they were acting in good faith. The trouble was they were trying to run under wrong principles; they were utterly unable to make their revenues equal their expenditures, hence, bankruptcy.

The average person is very apt to get an entirely wrong impression of the benefits aimed at by a national appropriation. It is not merely to

further that sub-division of poultry culture often styled "The Fancy" as many may, and probably do, suppose, but on the contrary, to bring out the practical side of fowl raising. For instance, let us refer to the State Poultry Association of Rhode Island. This society receives one thousand dollars per annum. It divides its exhibition into two grand classes. The fowls shown in their natural condition compose the first; market poultry—dressed for the market—and the egg produce of each variety make up the second. Therefore it can be easily seen that the fancy comprises but a small part, if any part at all. Too much commendation can hardly be given to such a combination; it is practical in the broadest sense of the word. It has been taken from the control of the fancier and made him either come up equal to its utility features or else step out; invariably it is the former.

Such an exhibition is an educator in the highest sense. It is not merely a show where one goes to see a fowl representing a color standard, but one that is not only beautiful in feather, but one which is given an opportunity to demonstrate, what is of more importance to the average farmer, that it is practical, or otherwise. No better place could be devised to prove to the practical poultryman the superiority of the thoroughbred or crossed thoroughbred over the common dung-hill. He has before him the fowl itself, what can be made of the fowl for market and what the fowl can produce. Where can one find a better place or an institution more fitting to accomplish the desired end than such an exhibition conducted on such principles? Actual experience of those interested in advancing the blooded fowl in the states so favored by popular aid has been demonstrated beyond a doubt.

There is no reason why Michigan poultrymen are not entitled to such a consideration from the State Legislature. The same privilege has been extended to other societies representing the interests of other vocations. It seems to have become customary for every association having in view the advancement of some particular interest to have their endeavors aided by a suitable pecuniary support from the state treasury. The writer is glad that such is the case. It shows a proper appreciation of the worth of our leading industries. And we trust that there will arise no active opposition to an equal division. Certainly Michigan poultrymen, who are interested in an industry that puts forth an annual product equal, if not greater than any other single agricultural output, have at least a just right for practical consideration.

Shiawassee County. C. P. REYNOLDS.

For the Michigan Farmer.
HATCHING AND RAISING CHICKENS.

In the issue of The Farmer of August 28th is an article from our esteemed friend, E. F. Brown. He says that there has been so many different ways experimented upon in raising poultry this summer that any person who has been interested in the work, with an eye for observation, should know the why and wherefore of each method. He also says several farmers purchased incubators this year, and that their efforts have been far from a success.

There is one thing that we must all learn, that is, how to take care of the young chick after it is hatched. Undoubtedly the incubators hatched the eggs well, or fairly well, but the chick dies for want of—we do not know what. They die, that is all we know. We have used an incubator a good deal, and if we could hatch the chicks we could raise them, as my wife is an expert in caring for young chicks. Friend B. says: "Some say the extreme hot weather has a tendency to start the life in an egg, and when it is gathered and placed in a cold place, such as a cold damp cellar or an ice-box, would, I think, kill the germ of any eggs if they were to remain in such a cold place for any length of time. Brother B. calls to mind that when a hen steals her nest she hatches all or nearly all her eggs. This we all know

to be a positive fact. Why is it? We think it is because the eggs are not handled. If we gather the eggs every day we place them in a basket, and they are more or less knocked around, and probably some are broken before we know it, and, of course, they don't hatch and we don't know the reason. I knew one breeder who had a small box fixed up in his fowl house, and when he gathered his eggs always placed them in this box and never carried them to the house. He said he had better luck through not handling the eggs too much.

There is one thing sure, we cannot raise early chicks for the market without an incubator, as we cannot get the hens to set when we want them to; but we can raise all the chicks that we can hatch if one is careful to keep them warm. This does not need an extra large outlay of money. One can make a brooder to hold 200 chicks for a few dollars which will be better than half of the patented ones.

Brother B. also points out the fact that 75 per cent of all the diseases are caused by lice. He is right in making this statement, and the free use of kerosene oil will drive all the lice out of the henhouse in quick order.

The time to sell young chicks for market is when they are large enough to weigh one pound or more; then there is the most money in them. Sell them just as soon as the market will take them, and fill their places with more, and sell them, and so on. This is the only way one can make any

profit in market poultry. There is no money in keeping the fowls until the holiday trade, for we do not get as much as we could several months before, and the cost of feeding amounts to quite a little when the chicks get large.

I do not think it pays to sell all the old hens off every year, as most farmers do. The old hens lay earlier than the young ones do, and if the farmer should keep his hens until his pullets commence to lay he could realize quite a large amount from them before the young ones begin to give him any eggs. Then young chicks are stronger from old hens than from young ones. This may be the cause of so much bad luck this year. If all the chicks are from immature hens, of course the chicks would be weak.

Brother farmers, try keeping over a few old hens this year, and see if you do not have better luck with your chicks next year.

Let us hear from some of the farmers who bought incubators this year and let them tell us how they managed the machines and how they cared for their chicks. We have been in the business a long time, but we know that we have learned a great deal from reading the articles in The Michigan Farmer from people who think they are great experts in the business, so I urge all who are raising poultry to give us their experience and help, and you will not only help yourselves but others by so doing.

Calhoun Co., Mich. C. L. HOGUE.

A Child's Recovery

From Paralysis and Six Years of Convulsions.

Little Fannie Adams, of Umatilla, Cured of a Dreadful Malady.
A Cure of Unusual Interest—A Reporter Investigates.

From the Lake Region, Eustis, Fla.

For some time past the Lake Region has been receiving reports from Umatilla, Fla., of an almost miraculous cure that had been effected in the case of Fannie Adams, a daughter of A. J. Adams, of that place, and last Saturday a representative of this paper made a trip to Umatilla for the purpose of determining the authenticity of the same.

The family live a short distance from the village, where it was found that the people were cognizant of the cure which had been effected, and were rejoicing with the family in their new found happiness. The father, A. J. Adams, is a hard-working honest farmer from east Tennessee, and the family came to Florida four years ago in the hope that a change of climate would be of benefit to their afflicted child. Much of their earnings have gone for doctors' bills, whose services proved unavailing. The representative was greeted by Mrs. Adams, from whom he gained the story of her great trial.

Fannie, the youngest child, was born in east Tennessee, and was seven years old on the third day of February, 1897. When ten months old she was stricken with paralysis, which affected the entire left side. This stroke of paralysis was followed by convulsions, and from the time little Fannie was ten months old until February, 1897, there was not a single day or night that she did not have spasms of the most distressing nature. Not a single convolution, but always three or four, and sometimes as high as ten in one day.

The family was all broken down with care, and Mrs. Adams states that for one year she did not go into her kitchen to superintend her household work. All the fingers of the right hand of the little girl are enlarged and misshapen, caused by her biting them during the fearful suffering. The case baffled the skill of the best physicians, and they were frank to say that they could not determine the cause.

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or prescribe a remedy to aid the afflicted child.

But what a change now in that household; for little Fannie has recently been released from her six years of agony, which brings the light of happiness to the faces of the parents.

In January, this year, Mrs. Adams, who had purchased some of Dr. Williams' Pink Pills for Pale People for her fourteen year old daughter, determined to try their effect upon little Fannie. After three or four doses, she noted an improvement and she then told the father what she had done. He at once went to the village and bought another box, and up to this time six boxes have been used. The first pills, Mrs. Adams states, were given in January, the latter part, and certainly not earlier than the fifteenth or twentieth, and the child had her last convolution on February 3d, nearly three months ago. Her general condition has improved in every way, and it was not a month after the first pills were taken when she began to walk without assistance.

The pills were bought at the drug store of Dr. Shelton, in Umatilla. In answer to the question, did he, to his personal knowledge, know that the remedy had benefited Fannie Adams, as was stated by her parents, the doctor said that he was a regular practicing physician, and as such was loth to recommend any proprietary medicine, but still he was ready to do justice to all men, and he did know that Dr. Williams' Pink Pills for Pale people had benefited Fannie Adams, and also volunteered the information that he knew of other children in the village who had been benefited by their use.

Dr. Williams' Pink Pills for Pale People are sold by all dealers, or will be sent post paid on receipt of price, 50 cents a box or six boxes for \$2.50 (they are never sold in bulk or by the 100), by addressing Dr. Williams' Medicine Co., Schenectady, N. Y.

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All communications relating to the organization of new Clubs should be addressed to F. D. Wells, Rochester, Mich.

THE ASSOCIATION QUESTION FOR OCTOBER.

There is no question of greater immediate importance to the farmers' club movement in this State than the one presented by the committee to the local clubs for discussion at their October meetings. As previously announced in these columns, this question is: "What Is the Most Profitable Line of Work for the Association to Pursue During the Coming Year?"

Its discussion involves both the past and the future of the work of the Association. Has the policy of the Association in the past proved satisfactory? Has too much, or too little been attempted? Have the questions for general discussion presented by the committee from month to month been such as would best promote a healthy and growing interest in club work? Is the phenomenal growth of the movement a healthy one?

All these questions, and many others, are opportune at this time, and a fair consideration must be given to each and all of them before the future work of the Association can be judiciously planned.

It is to be hoped that the discussion will be thorough, and general. Let it be the forerunner of a year's work and growth which shall leave all past records behind. Only two months remain before the annual meeting. Let the October meetings of the local clubs be the great preparatory for that event and for the year's work which will follow.

GOOD NEWS FROM THE COLLEGE.

The thousands of loyal and earnest friends of the Agricultural College among the farmers' club workers of the State will rejoice at the good news that by far the largest class in the history of the institution has just entered. On September 17th the number of new students had reached 183, and this number will be increased to nearly, if not quite 200 before the month closes. With the old students, in the other three classes, these 183 freshmen have more than filled every accessible room on the grounds, and new quarters have had to be rented in adjacent buildings.

This is as it should be. This grand educational institution should be filled to overflowing every year with the brightest young men and women in Michigan, and we believe that from this time on it will be so filled.

The policy of letting the people know just what the College is doing has thus borne rich fruit. Great credit is due all concerned in the good work of advertising the honest merits of the institution, and many are they who may justly share in this credit. The farmers' clubs are proud of the fact that theirs has been no small part in achieving this success, and with one accord they are willing to proclaim that the discussion of the August Association topic, "The Agricultural College," has been rich in results.

The Michigan Farmer, in so freely opening its columns to everything pertaining to the welfare of the College—deserved criticism as well as honest praise—has but followed out its well

defined and long established policy of carefully fostering everything that seems to it best for the farmers of Michigan. And it too rejoices that the College has at last won, by honest merit, the confidence of the farmers of the State, and that it has been able to do so much toward bringing about this happy condition of affairs.

In the meantime the College may well remember that prosperity always brings added responsibility. That to whom much is given, much will be required. That the farmers of Michigan, in placing under its direction the dearest treasures they possess—their boys and girls—may justly and reasonably expect that every promise made to them will be fulfilled.

THE FARMERS' CLUB MOVEMENT IN NEBRASKA.

We again have good news for the farmers' club workers of this State. Another sister state—Nebraska—is soon to have a State Association, similar to our own. The preparatory steps have all been taken and the Association is assured. Michigan sends greeting to Nebraska, and with the greeting ventures to accompany the injunction, Go tell thy sister state, Iowa, of the good thing thou hast found, and bid her go and do likewise.

TO THOSE CLUBS WHICH HAVE NOT YET UNITED WITH THE STATE ASSOCIATION.

PRESIDENT J. T. DANIELLS, OF THE STATE ASSOCIATION.

Permit a few earnest words regarding the subject of uniting with our State Association of Farmers' Clubs.

When the Association was formed, on February 4, 1894, it was for the purpose of advancing measures of general good to every farmers' club in the State, and faithfully has it sought to carry out the purpose of its formation.

It has been enabled to do, through this union of the local clubs, work which the clubs, singly, could not have accomplished.

The State Association has already become a strong and efficient agent, not only for the advancing of the interests of the local clubs, but it has wielded a strong influence in the directing of public thought and of public affairs, while it is destined to exert a yet more potent influence in matters of public concern, and that in the near future. Do you desire to have a part in this good work?

We believe most fully that every farmers' club in Michigan is loyal to the work and is ready to do its full share thereof, and all that is needed is to have the duty made plain and its attention called to the matter.

The State Association needs your full and hearty co-operation for the most efficient performance of the work before it, while you will be benefited by thus taking your part in the work.

From personal knowledge of the work and worth of the Association, the conviction is inevitable that no farmers' club can afford to remain unconnected therewith. The annual dues from each local club have been placed at the small sum of \$1 and the terms are indicated in Article 6 of the constitution, which reads as follows: "Any farmers' club, either in or without the State of Michigan, may become a member of this Association by certifying to the secretary its desire and paying a membership fee of \$1, which fee shall entitle said club to membership until the annual meeting of the following year."

Will any farmers' club fail to accept these liberal terms? We hope not. Certify to Secretary Wells at once your desire to become a constituent part of the "Michigan State Association of Farmers' Clubs," and then share in the name and fame of this useful, though youthful organization.

WALLED LAKE FARMERS' CLUB—WORK AND METHODS.

Our club is organized on the plan laid down by the originators of the movement. We have our committees on program, entertainment and location. The program is made out one month ahead. The dinner is arranged for later. At our meetings we dispose

of the dinner first and then take up the program. We bring games and in the forenoon we younger element have something to relieve the distressing situation which one is in when he has nothing to do save trying to think of something appropriate to say.

We generally calculate upon two papers in each program. We discuss the Associational questions. Our degree of enjoyment seems to be in proportion to the part we take in pushing along the discussions. We are getting so that a majority take part in them, the women also included. We have a question box that elicits discussion on subjects that have an immediate connection with farming.

Some are pessimistic, however. One attended once but failed to enjoy himself. I judge he made no effort. He now makes no effort to attend. Another says, "They do no harm, neither do they do any good." The benefits to accrue can not come in a single day. They will be most observable in the succeeding generations. The present is crippled from its lack of education and drill along these lines. Too many act on the principle of Napoleon when he wanted Fulton to invent for him a submarine steamboat and report in eight days.

HOWARD SEVERANCE.

REPORTS FROM LOCAL CLUBS.

OXFORD FARMERS' CLUB PICNIC.

The Oxford Farmers' Club held their annual picnic at Stony Lake grove on August 28.

The exercises consisted of a recitation by Mrs. A. D. Baldwin, a paper by "A. H. J." the well known Michigan Farmer correspondent, which was a most interesting description of the farmer's "Klondike" told in terms used by the miners. Any synopsis of it that I might give could not do it justice. I really hope it will be published in The Farmer. After the paper came an address by Prof. Clinton D. Smith, of the Michigan Agricultural College. He described the work done at the College and experiment station. The low cost to the taxpayer of the College was a surprise to many. The experiments being carried on are not only interesting, but will prove of value to the farmers of Michigan. The addition of the ladies' department seems to meet with favor. The Professor promised the Oxford people an excursion to the College another season at an expense of \$1 for the round trip. I will not attempt to give a full report of the ground covered in the address, but can say that the College gained friends through it.

The club feels under obligations to the Professor for coming, as it made our picnic a success.

Our next meeting will be held at the home of H. W. Hollister, on September 25.

Oakland Co. REPORTER.

SALEM FARMERS' CLUB.

Our last club meeting, held September 1 at the home of Mr. and Mrs. Irwin Hamilton, was thoroughly enjoyed by all. The program was made up of fine music, very interesting recitations and excellent papers. In listening to these we could but wonder if a club could be more highly favored than ours in literary ability.

The first paper was read by Miss Alice Lane, taking for her subject, "The Pleasures and Duties of Farm Life." The writer thought too much had been said of the duties and too little of the pleasures of farm life. The farmer, while he plows and sows, reaps and gathers in his grain, should not allow the consideration of dollars and cents—although this is quite important—to close his heart to the subtle influence of the sunshine and the flowers. He should be able to appreciate a glorious sunrise and sunset, the song of birds and the many voices of nature. There is no reason why the farmer should not possess a cultivated mind as well as a cultivated field, possess refined tastes, appreciate a good book, or enjoy a beautiful landscape. As a people we should feel ourselves very independent. She spoke of the many burlesques on farm life and of her indignation many times at the same. Not long since the writer was visiting her sister, when a little miss came running in and accosted her niece in about this wise: "Hazel, our yard has all grown up to nice green grass and we didn't sow the seed either. You know we have got a lot of hayseed relatives and the seed falls off from them and grows when they come visiting us. Mamma says so. You get a lot of hayseed relatives and I bet your yard will grow green too." That mamma's

home was in a village and she is a saloonkeeper's wife.

The Association topic, "The organization of new clubs; how best can the membership be increased?" was introduced by a paper from H. C. Waldron. He said the committee did not confine him to the Association topic, and with this permission he would indulge in a prelude. The writer said the deep interest he felt in the present and future condition of the American farmer had induced him to prepare this paper. He said it was far from his purpose to intrude in the slightest degree upon any political organization, or the political views held by individuals, but if a thing is right it is no less right because it is advocated by the political party with which I do not affiliate. And if it is wrong, the fact that any party endorses it does not make it right. It would be far better for us if we knew no party and gave closer attention to the lumber trust, to the tariff on wool, and referred to The Michigan Farmer and read some articles the paper had published concerning the tariff law. The writer dwelt for some time on taxation. We are all well aware there was no reduction, but rather an increase. He advised a vigorous effort to be made by the farmers to equalize the same, proving very conclusively that the power was in their hands if they would use it. "Again I say to you, educate, educate, educate; organize, organize, until no legislative body will dare to ignore the farmers' interests. Then will the politicians not only comply with your request, but they will tumble over each other to find out what the farmer wants and thinks." The writer said in taking up the Association topic, he knew of no better nucleus for organization and no better avenue for education along the lines indicated than the farmers' clubs. He advised each local club to appoint an organizing committee, whose duty shall be to form organizations in every township and county in the State, and then send delegates from these to the State meetings as an executive committee. He thought there was no possible way in which membership could be increased as rapidly as through the columns of The Michigan Farmer devoted to club work, thereby constantly keeping before the farmers the necessity and benefits of organization.

On motion of H. Smith, the president is to appoint at our next meeting a committee of four, two gentlemen and two ladies, as an organizing committee.

On motion of Mrs. Ross, the club voted to hold a one-day institute some time during the winter.

Mr. Lovewell talked to us in his happy, good-natured way, congratulating the farmers on the good prospects of the present, advised us to be courteous to all, stop grumbling and appreciate our farm lives and homes, which are blessed with everything that is grand and beautiful. He closed his remarks by inviting us to visit the South Lyon Club, of which he is a member.

The names of Mr. and Mrs. A. L. Walker, Mr. and Mrs. Rue Rich, Rev. and Mrs. Thrasher were presented for membership and accepted. The next meeting will be held at the home of Mr. and Mrs. John Aspen.

Washtenaw Co. CORRESPONDENT.

SOUTH HENRIETTA FARMERS' CLUB.

Mrs. William Dutcher cordially entertained this club at her farm home, Saturday afternoon, Sept. 4. (Ida, with the aid of The Michigan Farmer and a good hired man very successfully managed an 80-acre farm). After a rest through the month of August, a full score assembled together with great activity to take up the club work, and were duly called to order at 4 p. m. by the president.

The question of the day was then taken up, "Does the experiment station justify the cost of its maintenance?" Mr. Jordan thought we could tell better if we knew something about what the expenses are. The president here presented a pamphlet containing a full list of the expenses and of the amount of aid received from the government; also explained the connection of the station and College.

Clint Tanner thinks farmers could get a great deal of benefit from the stations by studying more carefully the bulletins. Thinks the farmers do not know they can have them by sending in their names.

Mr. Jordan thought if they managed at the stations just as their reports read he could not see why the farmers should fail to find a profit if they

would get the bulletins and read them. George Sacket thought the reading of these publications a great benefit to the public. He found a great deal in The Michigan Farmer that was very useful to him.

Mr. Kinch says the best informed people find the least fault. It would be a great mistake to do away with those stations.

C. Tanner thinks the remedies for potato scab worth more to the farmers than all the cost to us of that and that alone.

The president was asked his opinion: Thinks there is a large benefit to be derived from the reading of the bulletins. Thinks if they were distributed among the club it would be a help.

Sarah Harrington exhibited a picture of the College building and interior of the room in which the cooking school is taught. This was viewed by the ladies with great enthusiasm.

Mr. Jordan again remarked that the knowledge these stations furnished the public of remedies for the many pests farmers have to contend with was of immense worth.

Messrs. Tanner, Jordan, Harrington and others gave the club some descriptions of the works at the station in Lansing, a number of them having visited the grounds. A vote was taken that the club maintained the justification of cost of station and College. Carried by the majority.

Viewing committee report all things in good order. The non-attendance of our members was largely due to seed time and threshing, but we hope to report a full turnout at our next meeting, which will be held at the home of Watson Disbrow, on the old Ridge farm, the first Saturday in October.

By order of the club the ladies have the next question. One was selected from The Michigan Farmer: "Do flowers have any influence over the inmates of the farm home?" Discussion to be led by Alice Tanner.

LETIE PALMER, Reporter.

Jackson Co.

THE ARGONAUT FARMERS' CLUB. The September associational question elicited the following response from the members of the club:

That in communities where the Farmers' Club is as yet an unknown factor, an invitation be extended to some of the people to attend one of these organizations and acquaint themselves with the benefits to be derived from these societies. That the clubs send a person or persons into said communities, who shall interest themselves in this line of work, creating in their minds a desire to become co-workers in an organization that in its three years' existence has done much mentally, socially and financially for the farmer and taxpayer.

That the lessening of taxation the past year by some \$50,000 was due to the movement of this organization, as the farmers are finding out that "in union there is strength."

That the Farmers' Club department in The Michigan Farmer is an important factor in the establishment of clubs by the discussion of this subject in its columns.

That if we would arrest the attention of the people upon a matter it must be done by agitation.

Oakland Co.

COR. SEC.

GENOA FARMERS' CLUB.

After two months' vacation, the Genoa Farmers' Club met September 4 at the capacious home of Mr. and Mrs. Albert Tooley. All present greatly enjoyed the informal talk given by Mrs. W. J. Garlock, who formerly lived in Genoa, but now of Wyoming. She described very vividly the country, climate, wild animals, amusements, manner of living and caring for stock on a ranch, living six miles from the nearest neighbor, etc., in Wyoming.

After a short discussion of the "Association Question" by A. Tooley, R. R. Smith, Ernest Lawson and others, a committee of three, consisting of A. Tooley, John Lawson and Jacob Haller, were appointed to assist in organizing farmers' clubs in other places. Adjourned, to meet at the home of Louis Fitch, Saturday, October 2.

MRS. T. J. CONELY, Cor. Sec.

Livingston Co.

HOLLY CENTER FARMERS' CLUB.

The September meeting of the Holly Center Farmers' Club was held at the home of Mr. and Mrs. E. E. Wheeler. In the absence of both the presiding officers the meeting was called to order by the secretary, and Hon. R. K. Divine appointed chairman.

One of the interesting features of the meeting was the crop report read by Mr. Mitchell which was a comprehensive review of the crop situation

throughout the world, showing the immense shortage in wheat, rye, potatoes, etc. Everything seems full of promise to the American farmer.

The question for discussion was the further discussion of the question, "What is the Highest Duty Which We Owe to Our Country at the Present Time?"

In opening the discussion Mr. Downey said that the duty we owe to our country is paramount to that of party; that if we would discharge our highest duty to our country we should break through all party lines; that true patriotism rises above all parties and votes only for the best men and the best measures.

Mr. Wheeler agreed with Mr. Downey; he also spoke of the evils of intemperance. He thought we should look to the mothers to save our children and country from its influence.

Mrs. Mitchell thought there was no question but that the mothers were trying to educate their children right, but that the father's influence and example destroyed the mother's influence, because the average boy thought that what his father did was about right.

Mr. Shield thought our highest duty was to elect the best men to office.

Mr. Mitchell thought it was to settle the financial question.

Mr. Divine, in closing the discussion, said that in discharging our duty to our country we must try and accomplish the greatest good for the greatest number; that we should be as patriotic and farseeing as our forefathers, who not only looked after their own interest but the interest of all future generations.

The next meeting of the club will be held the 30th inst, at the home of Mr. and Mrs. Eaton. The question for discussion will be the September Association question, "The Organization of New Clubs, How Best Can Their Number be Increased?"

Oakland Co. REPORTER.
WEBSTER FARMERS' CLUB OF OAKLAND COUNTY.

The Webster Farmers' Club of Oakland County was very hospitably entertained at the home of Mr. and Mrs. John Northrop the first Wednesday in September. After partaking of a bountiful dinner, the meeting was called to order by the vice-president, Mrs. S. C. Elwood, and she proved that a lady could do the honors of the office very nicely.

M. E. Carpenter led on the Association question. He said he did not believe in a forced growth. He said let us go on with our work and get and do all the good possible. Then he thought people would see the result of our work and would want to fall into the ranks without urging.

S. C. Elwood was of very much the same opinion, but A. B. Richmond thought if we are going to do anything we must grow numerically. He thought if some of these new clubs could have someone sent out to give them some hints it might prove beneficial.

A. B. Bixby thought one good thing we get out of the club is a first-rate good dinner, and he thought we might get considerable more good if we went to work right. He mentioned one instance last spring when the supervisors met they voted to decrease the board of the prisoners in the jail from fifty to forty cents per day. One of the men who voted for that measure afterward met the sheriff on the street and found that he had displeased him, as he claimed he was boarding them as cheaply as possible. So the next morning that man went back and voted to have that bill repealed. The speaker thought that a man who could be bought or bribed should be put out of office and kept out, too. He thought the clubs should do all in their power to prevent such men holding office.

After discussing the Association question to their satisfaction, they took up the subject of "wheat raising." The time of sowing, amount of seed, depth, etc., were all discussed. All believed in thorough cultivation of the soil to make a good seed bed. Time of sowing from September 10 to 15, or not later than the 20th at most, although James Seaman told of raising an excellent crop sown October 8, but all conditions were favorable. Some had experimented with the depth; had drilled from six inches to one-half inch deep; that put in the ground six inches never came up. They were of the opinion that about two inches is about the right depth.

Mr. Crawford inquired about sowing wheat after oats. Mr. Terry thought it would not be attended with very good results on light land, but

many make a practice of doing so, with good results. Someone inquired about sowing wheat after beans and they were referred to A. B. Richmond, as he had experience the past season. He said he harvested 300 bushels of beans from eighteen acres. He sowed to wheat and was well pleased with his crop.

S. C. Elwood thought bean ground, kept clean, is almost as good for wheat as summer fallow.

We had a very good literary program, the question box bringing out a good deal of discussion, which was much enjoyed by all. The business being concluded we adjourned to meet with Mr. and Mrs. Simeon Ainsley, the first Wednesday in October.

MRS. T. SEAMARK, Cor. Sec.

WEBSTER FARMERS' CLUB.

Tales of pioneer days in the social forenoon gathering and purely agricultural topics in the afternoon session characterized the September club meeting at the residence of Wm. Scaddin. At the age of over 60 years, Mr. Scaddin is living on the place of his birth, and the crops of each year, if not injured by drought, have during all this time continued to be superior to those of each preceding year. The tall dense growth of corn beside the well-kept lawn, where the club assembled, told of a soil that had enabled its long-time proprietor to erect a commodious residence with surrounding buildings.

Some four or five townships were represented and a disposition on the part of E. A. Nordman to sound the praises of his own township, Lima, seemed to enhance the attractiveness of Webster, by way of comparison. 'Tis true, however, that taken all in all, old Washtenaw is "to the front;" if not in horticulture and agriculture, it certainly is in the general intelligence and social qualities of its people. It may at least be said that the influence of the great State University and State Normal have had a moulding tendency for a number of decades, even with the farming community.

A considerable number of the "old timers" have been students in these fine institutions with quite a sprinkling of graduates.

The fact that the discussion on "smut in wheat" assumed a somewhat scientific turn is not to be wondered at.

E. A. Nordman, after a preliminary talk by way of explanation, gave his recipe to prevent smut, which has already been given in The Michigan Farmer.

"Tell me what the weather is going to be and I will tell you men how to farm it," was the emphatic declaration of a visitor.

The old chestnut, "chess turning to wheat," occupied attention for a few minutes and showed that occasionally there is a man that will not be convinced against his will.

More than half a dozen retired farmers, who are chewing the cud of plenty and leisure, sat contentedly by and heard with looks of amusement the tales of the battle with the elements for good crops.

R. C. REEVE, Cor. Sec'y.

Washtenaw Co.

NORTH VERNON FARMERS' CLUB.

The regular monthly meeting of the North Vernon Farmers' Club was held at the home of Mr. and Mrs. O. F. Sessions, on September 1. A good attendance was present, but no doubt some were prevented from attending on account of the shower that occurred at the hour of meeting. A good literary program was rendered, special pains having been taken to prepare songs for the occasion.

The question, "How to make the farmer's home more attractive and enjoyable," was led by Thomas Cooling. He said no class of individuals had better opportunities to make the home attractive than the farmers. It did not require the outlay of much money, but rather of labor, and that could be performed at odd spells. He would beautify the surroundings. His wife thought that one thing that made the home enjoyable was to have the men on time when meals were ready.

Floyd Owen said, jokingly, that he thought that plenty of cedar and tobacco made home enjoyable. His wife said the constant nagging of husband and wife did not make enjoyable homes. She was willing to let a man sit in three chairs at a time if he wanted to.

J. C. Curtis thought it was well to beautify the surroundings, but the great requisite to make home enjoyable was to have Christ in it.

Mrs. J. J. Patchel: A contented

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Interview With Mrs. B. A. Lombard.

I have reason to think that I would not be here now if it had not been for Lydia E. Pinkham's Vegetable Compound. It cured me of a fibroid tumor in my womb.

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I had been in my usual health, but had worked quite hard. When my monthly period came on, I flowed very badly. The doctor gave me medicine, but it did me no good. He said the flow must be stopped if possible, and he must find the cause of my trouble.

Upon examination, he found there was a Fibroid Tumor in my womb, and gave me treatment without any benefit whatever. About that time a lady called on me, and recommended Lydia E. Pinkham's Vegetable Compound, said she owed her life to it. I said I would try it, and did. Soon after the flow became more natural and regular. I still continued taking the Compound for some time. Then the doctor made an examination again, and found everything all right. The tumor had passed away and that dull ache was gone.—MRS. B. A. LOMBARD, Box 71, Westdale, Mass.

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10:35 pm	Buffalo, Toronto and New York	6:10 pm
1:30 pm	Mt. Clemens	6:45 pm
		6:10 pm

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mind had much to do in making the home enjoyable.

P. Kline would have beautiful lawns and surroundings.

Mrs. J. O. Marks: Beautiful lawns and flowers.

J. O. Marks: Good books and papers.

The question box produced the following questions of interest: "Does it pay to thresh the corn and shred the fodder?" Thomas Cooling thought the great trouble was to keep it from heating. O. F. Sessions had shredded his last year and had no trouble with its heating.

"What is the best and cheapest method of heating the house?" Mrs. H. B. Chalker and Eugene Vincent both spoke highly of the furnace. A. Angel spoke in favor of a new stove that consumed gas and smoke, called the "slack burner." He thought it was a very cheap way of heating the house.

Mrs. Albert Conrad, one of our members, having died since our last meeting, appropriate resolutions of condolence and sympathy were passed and ordered spread on the records and published in the Vernon Argus.

Adjourned, to meet the first Wednesday in October, at the home of Mr. and Mrs. W. H. Wright.

PETER PATCHEL, Rec. Sec'y.

Shlwasson Co.

WEST AVON FARMERS' CLUB.

After a vacation of a couple of months the West Avon Farmers' Club resumed its duties and its pleasures by holding a meeting on Tuesday evening, September 7, at the home of L. C. Flummerfelt. In consequence of the busy season, the attendance was very small. The meeting was called to order by President B. J. Fuller. After the usual preliminaries, the club proceeded to discuss the question, "The Bright Side of Farm Life."

This question came up at a most inopportune time, as some of our farmers are plowing stubble for wheat and the ground being so very, very dry, they could not see the bright side just now. It was agreed, however, that the farm is the best place to bring up a family, and that a majority of our ablest and best men came from the farm.

F. D. Wells, secretary of the State Association, being present, gave an interesting talk on the business of the Association, the work of some other clubs, etc. After the literary part of the program and refreshments, the club adjourned to meet at B. J. Fuller's in a month's time.

The Michigan Farmer wished the different clubs to inform them where they held their picnics. Our club boarded the early morning train at Pontiac on July 31 and spent the day at beautiful Belle Isle.

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